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ABSTRACT

Materials contained in this manual and curriculum guide provide educational coordinators with theoretical and operational information on how to carry out the integrated curriculum designed to facilitate improved instructional and career programming for students in residential settings. Chapter 1, Career Education for Chronically Disruptive Youth, outlines the behavioral needs of disruptive adolescent boys and girls, effective educational strategies, and programmatic directions. Chapter 2, Ascertaining Vocationally Related Behaviors, spells out types of diagnostic instruments that can be used with such youth, including academic and vocational aptitude tests, and how they are to be used. Chapter 3, Establishing a Meaningful Career Education Plan, reviews the implementation and operation of job and work stations, and career centers. Chapter 4, An Integrated Curriculum and Its Implications for Chronic Disruptive Youth, discusses how integration of programmatic goals, the diagnostic process, and the work stations enables the youth to establish and realize lifelong career goals. Chapter 5, Job Coaching, outlines the responsibilities of the job coach, who insures the employment success of youth leaving the residential centers. The second half of the manual consists of the integrated curriculum guide of course outlines for teachers, counselors, coordinators, and job coaches of chronic-disruptive youth in the areas of science, health and safety, mathematics, language arts, and social studies. The outlines include subject, objectives, study content, and suggested learning experiences. (TA)

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AN INTEGRATED CURRICULUM
FOR
CHRONIC DISRUPTIVE YOUTH

by

Dr. Sidney Miller
Dr. David Sabatino
Dr. Charles Sloan

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Robert J. Thomas', Superintendent, Illinois Youth Center, far reaching administrative support has resulted in the implementation of the manual's ideas and goals. It has been the energy and innovative efforts of Cecil F. Jones, Vocational Coordinator, Office of Vocational and Educational Services, that brought the essential personnel together to make the Integrated Career Education Curriculum a reality.

Further, many thanks to Edmund H. Muth, Correctional Manpower Services Project, whose advice and recommendations have enabled the authors to avoid the many pitfalls that have ensnarled other such programs. Finally, commendations are extended to the authors: Dr. Sidney Miller, Dr. David Sabatino, and Dr. Charles A. Sloan.

Ray J. Quick, Administrator
Office of Vocational and Education Services

Preface

Efforts of the Department of Corrections to develop a contemporary Integrated Career Education Curriculum for students in residential facilities have culminated in this manual. Its intent is to illustrate for the coordinators how they can facilitate improved instructional and career programming for such youth. The initial implementation of this prototype integrated curriculum has been carried out at the Illinois Youth Center, St. Charles, Illinois under the direction of Superintendent, Robert J. Thomas.

The Integrated Curriculum has resulted in the interweaving of several programs at St. Chalres, academics, vocational/technical instruction, work experience counseling, and career planning, and personnel, teachers, school psychologists, social workers, vocation teachers, and skilled tradesmen and women. The blending of interest areas and a personnel is resulting in a richer, more varied curriculum with the flexibility to answer the unique needs of the youth living at the residential centers. Until the initiating of this program, the curricula has been fractionalized to the degree that personnel working with the same youth were not necessarily acquainted with the goals of other personnel. The integrated curricula is alleviating this instructional dichotomy.

Soon to be used at other centers, this manual provides the coordinators with theoretical and operational information on how to carry out the integrated curriculum. Chapter I outlines the behavioral needs of adolescent boys and girls, the educational strategies that are most effective, and recommends programmatic directions. Chapter II spells out the types of diagnostic instruments that can be used with such youth, ranging from academic to vocational aptitude tests, and how they are to be used. Chapter III reviews the implementation and operation of job and work stations, and career centers. Chapter IV discusses how the programmatic goals, diagnostic process, and the work stations become integrated into a unified program which enables the youth to establish life-long career goals and then realize these goals. Chapter V outlines the responsibilities of the Job Coach, who has the task of insuring the success of the youths leaving the residential centers.

The manual is designed to interface with a new "Integrated Curriculum Guide." The guide is written to ease the task of integrated curriculum personnel. It delineates the steps teachers, counselors, social workers, and school psychologists must take in developing specific competency in youth. The manual and guide are a step forward in the Illinois Department of Correction's efforts to improve the quality of services youth living at residential centers receive. We believe such efforts better prepare the student to crystallize his career goals, and result in most realistic assessment of personal interests and needs.

Allyn Sielaff, Director
Illinois Department of Corrections

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Northern Illinois University

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Chapter I

Career Education for Chronically Disruptive Youth

Sidney R. Miller and Bruno J. D'Alonzo

Introduction

Chronically disruptive youth until the turn of the 20th century were generally dealt with as trouble makers or criminals, with incarceration or exclusion from society by direct or indirect methods as the usual societal treatment. Through the evangelistic efforts of Jane Addams and William James, public attitudes began to change in the early 1900's and norm-violating youth were treated less as problems of society and more as society's problem. This change in attitude was reflected in new programs for these youth. Communities, the courts, and institutions began to employ rehabilitative efforts as a substitute to punishment.

The efforts at rehabilitation were sporadic until the 1950's and 1960's when local, state and federal agencies supported and funded the development of vocational training for these youth who are continually in conflict with school and institutional rules and present both an educational and behavioral dilemma. The difficulty has been that most chronically disruptive youth begin career preparation during late adolescence (McCandless, 1970, & Rice, 1975) rather than at the onset of adolescence. The latitude of career choices given to youth is dependent on five factors. They are: (1) socioeconomic background, (2) parental attitudes, (3) school achievement, (4) peer values, and (5) intelligence (Rice, 1975, & Shaw and McKay, 1972). Of these five factors, the chronically disruptive youth, who is usually is in conflict with community values, tends to be rated low on three or more of the five factors (Heggen & Irvine, 1967).

Those youth currently being provided career training by private and public institutions are generally in the lower range of normal intelligence (85+). The tendency is to place these low achieving youth in routine, repetitive, and low-paying occupations even though they could perform successfully in more highly skilled and highly paid occupations (Kokaska, 1971, & Oswald, 1968). The author's survey found only two programs in career education that sought to develop the appropriate social and vocational skills among those individuals with average or above average intelligence (Klapper & Neff, 1966, & Scurlock, West, Keith & Vialle, 1964). Goldstein (1969) reiterates the belief that too much emphasis is placed on academic instruction and too little on the development of socio-occupational competence.

Career education has grown considerably in recent years in order to meet the new legal, social, and instructional variables our culture has outlined for the next decade. The primary thrust of this new concept is total assessment and training, rather than the limited diagnosis and instruction disruptive youth received during the 1950's and 1960's. During these decades the effort was primarily aimed at designating vocational areas and providing youth with necessary survival skills in the identified field. Career education's view is broader. It seeks to marry interests, needs, and skills with personal goals. The emphasis is on upgrading a youth's competencies and establishing near, mid- and long-term career objectives.

Interest in career programs has received increased attention since the court decisions of the early 1970's (Mills vs. the Board of Education, 1972; and Diana vs. State Board of Education, 1970), and subsequent special education legislation in states such as Maine, California and Illinois. These court decisions and legislative acts have resulted in expanded public school responsibilities toward all youth, from 3 to 21 years of age.

The review of the literature revealed two distinct difficulties for institutional educators and correctional officers seeking program and instructional guidance. The first diffuculty deals with the lack of information related to program efficacy. Numerous programs have been proposed yet few have been formally evaluated to search out strengths and weaknesses. The second problem concerns the physiological, biological, and cognitive development of the adolescent who is most often cited as the chronically disruptive school age offender. Several researchers have noted, (Ausubel, 1957; Bruner, 1966; Erickson, 1968; and Piaget, 1969), that adolescent youth are experiencing significant physical, biological and cognitive changes, beginning at around 11 years of age. These changes continued until the adolescent is approximately 17. The disruptive adolescent's problems are multiplied by the fact that such changes make the transition from childhood to adulthood additionally trying.

Curriculum Evaluation

As of 1972, only one-fourth to one-third of all special education programs in the United States were directed at the adolescent student (Martin, 1972), and fewer than ten percent were specifically designed for disruptive youth. It was further observed by Martin that only 20 percent of the youth leaving schools in the next four years will be fully employed or seek higher education. Of the remaining students, 40 percent will be underemployed and 26 percent will be unemployed. Martin recommended the development of an integrated curriculum.

Hudson (1971), in support of Martin's position, reported that success in leaving a controlled public setting and integrating back into society was dependent on job training and subsequent employment. Miller (1975) and Sabatino (1974) held that this training depends on a properly integrated academic and career education. Yet a review of 40 career programs found only five (Bail and Hamilton, 1967; Crump, et al., 1966; Deno, Henze, Krantz & Barklind, 1965; Falkner & Jackson, 1967; and National Education, 1967) which provided specific educational instruction along with a career education curriculum for the participating youth. Of the same 40 programs, only three (Cowles, et al., 1967; Deno, Henze, Krantz, & Barklind, 1965; and Eddy, Windle, de la Cruz, & Wolford, 1966) delineated responsibilities for educators in such vocational training programs.

Gadlin (1966) in a survey of personnel working in an emotionally disturbed, social maladjustment program, found that two-thirds of all personnel employed in these career programs were psychiatrists, physicians, psychologists and vocational counselors. Personnel such as teachers, prevocational work coordinators, or curriculum directors were generally not included on the professional staffs.

The evaluation instrumentation used by the 40 programs were predominantly intellectual, vocational, and psychoanalytical. Among the instruments used to measure intelligence were the Wechsler Intelligence Scale for Children, the Wechsler Adult Intelligence Scale, and the Stanford-Binet. The vocational measures were the Minnesota Paper Form Board, the Purdue Pegboard Test, and the Kuder Interest Test. The psychoanalytic instruments were the test of Anxiety for Children, the Child Compliant Questionnaire, and the SRA Survey of Interpersonal Values. Academic assessment instruments were used in only five of the 40 programs (Deno et al., 1965; Eddy et al., 1966; Neff & Koltuv, 1967; and Plue, 1972). The two academic areas assessed were reading and mathematics. There were no learner aptitude measures of perception, sensory-motor development, language, conceptual abilities, social competency, of language arts.

Eight programs (Cowles et al., 1967; Deno et al., 1965; Gruelle, 1967;

New, 1972; and Scurlock et al., 1964) had direct liaison with outside agencies related to employment, career education development, welfare, and judiciary. Among the organizations these programs sought assistance from were the Department of Employment, Bureau of Vocational Rehabilitation, Departments of Education, the Welfare Department, and the courts. The large number of programs performing without outside agency assistance is perplexing considering the demonstrated need to have a coordinated and integrated program with community groups (Scurlock et al., 1964).

Disruptive youth often have trouble comprehending and coping with community and societal demands. Bail and Hamilton (1967) stated that the success of any secondary program is contingent upon nine ingredients:

a. Use of community leaders with competencies in career training.

b. Use of community facilities when appropriate and relevant.

c. Counseling from various state agencies concerned with career training.

d. Concern for practical application of the academic and career training.

e. In-depth preplanning of programs and facilities.

f. Adequate equipment and facilities to facilitate continuity between the program and career goals.

g. Teachers trained to recognize the needs of the youth and the community.

Work experience has been incorporated into the secondary school curriculum, often with the cooperation of the state rehabilitation agency, employment service and sheltered workshops. These work study programs have had the benefit of involvement by ancillary personnel in the career habilitation of disruptive students prior to graduation, but as yet have not been as effective as they were designed to be (Brolin, 1971).

In many cases communication problems have existed between the secondary school and the rehabilitation agency, resulting in sporadic services (Hammerlynck and Espeth, 1969). State employment services do not usually have a working relationship with secondary special education programs and many do not feel it is their responsibility to find employment for these high school low achieving or disruptive youth.

Program Studies

In a five year study Neff and Koltuv (1967) found that youth introduced to career education at an early age tended to assimilate the training more readily than did youth who entered the programs at a later age. James (1966) reported, however, that older youth tended to be more realistic in career outlook. He also found that students from higher socio-economic backgrounds had a greater number of job possibilities open to them. Conversely, youth from lower socio-economic neighborhoods tended to underestimate themselves and their career opportunities. James noted that students who had outside experience tended to be more successful than those who remained in a sheltered environment. In contrast to James' (1966) findings, Gorelick (1966) reported that youth with realistic expectations were no more successful in obtaining jobs than those with unrealistic career expectations. Parnicky and Kahn (1963), reporting on

437 youths, concluded that the most accurate criterion for measuring the future success of a youth was his performance on a job.

Deno, et al., (1965) reported that out of 483 youth involved in a career program, those with higher intelligence test scores remained in school and were the most successful in obtaining appropriate employment. Those who had trouble in retaining a position were more often non-white, left school early, tended to be in conflict with societal codes, and had multiple handicaps.

From the results of these studies it would appear that the data provided to vocational counselors, educators, and correctional officers is scant. In designing programs with integrated curricula emphasizing educational and career goals, the needs of chronically disruptive youth must be considered. To date the data generated by educators and research has failed to demonstrate the prevailing variables and directions that must be used in future programmatic efforts.

Training and Instructional Preparation

Despite increasing demands for integrated career education programs with appropriately trained vocational teachers, state departments of education have apparently done very little to improve the preparation of educators and counselors who work with disruptive youth. A study of certification requirements (Thelen, 1972) identified Alaska, Oregon, and Washington D.C. as the only states which require special language instruction courses for secondary teachers. Clark and Oliverson (1973) found that only nine states out of forty-seven surveyed had any secondary certification requirements for work study coordinators. These same authors reported that only eight colleges or universities out of 207 surveyed had a differentiated elementary-secondary special education program, which points out a lack of direction from teacher training institutions.

While the inappropriateness of university training programs for professional personnel and inadequate certification standards of many states has been documented (Clark & Oliverson, 1973, & Thelen, 1972), disruptive youth still require unique social, educational and personal responses from the teacher (Ausubel, 1968, & McCandless, 1970). The disruptive youth is entering a period of role experimentation (Erickson, 1968), and developing the ability to think abstractly (Flavell, 1963, & Piaget, 1969) without the assistance of sensory data and concrete manipulative data. Adolescence is a period when one begins defining his or her role in society (Erickson, 1968; Evans and Potter, 1970; & McCandless, 1970). It is not a period in human development in which instructors can be casually selected or instructional and management procedures can whimsically be determined.

The need for highly qualified personnel in secondary education becomes more acute when the student is the disruptive youth with a history of social conflict and school failure and whose identity and self-worth as a contributing member of society is being questioned by adult authority, peers, and self.

Learning Characteristics

In studying adolescent youths with learning problems, Walters and

and Krenzler (1970) noted that school dropouts tended to exhibit several behavioral characteristics associated with school performance. These characteristics are: age, intelligence, grade level, reading and arithmetic achievement, socio-economic level, absenteeism, school participation, and grade point average. McCandless (1970) reported that 14 percent of all dropouts were at or above the 64th percentile in intelligence test scores. In other words, many students viewed as being disruptive were in the top 36 percent of the population intellectually. McCandless (1970) is in agreement with others (Glueck & Glueck, 1950; Quay, 1965; & Roman, 1957) who noted that around 75 percent of dropouts and delinquents have reading disabilities but are not necessarily intellectually retarded.

Sabatino (1974) indicated that many of the neglected adolescents in our schools with average or above average intelligence, who are failing in the traditional educational setting, should be considered learning disabled. If secondary schools were to adopt this definition, a significant break with the past would occur. Until now, public education has dealt with the troubled adolescent as either retarded, lazy, or turned off, and has placed such students into "maintenance" programs where the primary thrust was to keep them out of the mainstream of intellectual, academic, social, and career development. As a result, many of the secondary school disruptive students now have either an aversion to or lack the skills and information to succeed in testing situations (Clarke and Waters, 1972).

Management Procedures

The lack of clear definitions and well enunciated programs and instructional strategies has resulted in efforts at delineating behavioral data, so the educator can gain insights when interacting with the disruptive adolescent. The most common approaches in working with these youth have been counseling or behavior modification, both of which have some demonstrable short-term effects, but have rarely generated long-term effects.

Jersild (1957), in defining parameters affecting deviant adolescent behavior, contended that the majority of adolescent behavior disorders are merely exaggerated manifestations of emotional instability. Since then Erickson (1968), Mussen, Conger and Kagan (1969) and Piaget (1969) have all noted that adolescence is an inherent crisis period in each individual's development. It is a period in which an individual is beginning to experiment with such abstract notions as democracy, freedom, identity, and equality.

In looking at alternative approaches, Anadam and Williams (1971) concluded that teacher-student consultative models of classroom management were more effective than the more traditional teacher-curriculum model. Wagner (1972) reported that many unaffected students feel alienated and believe that the curriculum is irrelevant and fails to appeal to their individual interests and needs. Ariel (1971) allowed adolescents to monitor their own behavior. He reported increased learning through the use of a student established and maintained goals and objectives record inventory. McCandless (1970) noted that sharing of goals with the class is essential, particularly where the student-teacher values differ and where the student is male and the teacher demands conformity and obedience. He further states that the peer group is a more compelling force than any school official. Inappropriate behavior of secondary students is a universal problem (Eichorn, 1967), and the deviant student presents additionally confounding problems since he is frustrated not only with his developmental cycle, but by his inability to adequately achieve and interact with peers and society.

Management Approaches

The literature points to the consultative model as the most popular and effective with adolescent youths with learning handicaps. The need to establish a personal identity, and the requirement of society that an individual between the ages of 13 and 18 begin to establish career goals, results in a need of the adolescent to participate in professional-life decisions. Thus, both personal and society demands require the student to become an integral part of the educational system.

The traditional psychiatric-psychological therapeutic model has failed to meet the needs of such youths (Sabatino, 1974). Furthermore, he stated that there is evidence that such correctional techniques may be harmful in an adolescent's emotional and educational maturation. It is for this reason that efforts to expand behavior management have occurred so rapidly in just a few short years. Several behavioral management studies have been conducted with adolescents (Atthowe & Krasner, 1965; Meighenbaum, Bowers, & Ross, 1968; Slack & Schwitzgebel, 1960; & Steffy, 1966). Many of these programs have resulted in positive behavioral changes. Slack and Schwitzgebel (1960), using food and money as rewards, were able to reduce the chronic disruptive behavior of ghetto area boys, who historically have been in conflict with school and society. Cohen, et al. (1966), demonstrated the effectiveness of food and money in positively altering behavior among adolescents in academic environments. Wilkinson, Saunders, and Reppucci (1971) developed a three level program for institutionalized delinquents. The three levels progressively sought increased exemplary behavior from the students. The levels have various scales which could be adopted for learning disability programs for adolescents. Other researchers have (Pendrak, 1974, & Smith and Riebock, 1971) demonstrated the effectiveness of performance contracting with adolescent students in reading. These authors reported that overt behavior and reading performance improved through the use of contracting.

Wagner (1972) noted that students from non-middle class environments often feel disenfranchised by the educational setting. He recommends behavioral changes in the schools. Among these modifications are: 1) making the curriculum relevant, 2) teaching to the students' strengths, 3) having teacher-parent conferences near the student's home, and 4) providing the student with close and continual behavioral and educational monitoring.

The issue of what motivates an adolescent has been an ongoing debate among investigators. Senborn and Niemiec (1971) claimed material accomplishment, recognition, social involvement, and personal development were the four factors rated highest by high school students. These authors went on to state that none of the four factors were preeminent over the others. Anneliese (1973), studied the conduct of delinquent adolescents and noted that some troubled youth recognized right from wrong in social and personal situations, but were unable to act on this knowledge. Moreover, these adolescents were unable to maintain an overriding abstract personal or social ideal. When they attempted to hold an ideal, new conditions often arose which frustrated them. Anneliese suggested that one cause of this frustration was the inability to adapt when new parameters were introduced. This same phenomena was noted by Strauss and Lehtinen (1948) and Clements and Peters (1967) in primary brain-damaged learning disability children.

McCandless (1970), Jenson and Rohwer (1968), Glueck and Glueck (1950), Scrofani, Suziedelis, and Shore (1973) all sought to determine whether low socio-economic students also tended to have lower intelligence tests because of genetic or environmental factors. They found that when lower socio-economic students were given conceptual training their scores rose to a comparable level with middle socio-economic student scores. These authors concluded that lower socio-economic students—who often become troubled—suffer not from an intellectual capacity, but from insufficient training in the information and skill areas measured by intelligence tests. These findings are compatible with the earlier findings reported by Clarke and Waters (1972) and Wade and Shertzer (1970).

Other studies have dealt with the relationship between reading and adolescent problems. Alsop (1973) and Staats and Butterfield (1965) showed the validity of diminishing reinforcement techniques in the teaching of reading to a 14-year-old delinquent male with a second grade reading level. The subject was able to increase his reading level 2.8 grades. His behavior in school also improved. Dorney (1967) demonstrated the modification of attitudes of adolescents through the use of reading instruction and Raygor's (1970) study suggested that performance on the Cooperative English

Figure 2

Curriculum Content Areas

Finance	The Law	Health and Safety	Social Awareness
Consumer Education	Drugs	Smoking	Personal goals
Purchasing retail goods	Labor Laws	Narcotics	Decision making
Workman's compensation	Government: Local State Federal	Alcohol	Employer needs
Money and Banking	Personal Rights	Insurance	Use of a newspaper
Personal Budgeting	Courts and the Police	Personal Safety	How to study
Income Taxes		Personal Hygiene	How to apply for a job
		Sex Education	Labor Unions

Test can be used to identify potentially troubled adolescents. Fendrick and Bond (1936) discussed adolescence and reading as have other investigators (Glueck and Glueck, 1934, 1950, 1953, & Kvaraceus, 1964). The Illinois Curriculum Program, Counteracting School Dropouts (1967) showed that a number of Illinois schools use special education programs geared to diminish the soaring dropout rates. Developmental and/or remedial reading courses, vocational classes and work-study programs were among those receiving the highest ratings in effectiveness.

The U.S. Department of Health, Education, and Welfare (1973) publication, "Positive Approaches to Dropout Prevention", discussed many projects around the country using various means to decrease dropouts. Among them are the use of expanded career education programs, teacher awareness and training programs and changes in counseling services. A counseling Learning Center was established in St. Louis (Project Stay) whose purpose was to work with pupils referred as potential dropouts and provide technical and preventive assistance to teachers in the regular classroom. Other programs relating delinquency to specific learning disabilities have attempted to illuminate an otherwise dark area (Closson, 1971; Dinitz et al., 1957; Frease, 1972; Graubard, 1967; Kelgord, 1968; Schlichter and Ratliff, 1971; and Walle, 1972). The value of these programs has not as yet been determined.

Program Development

A considerable number of students adjudged chronically disruptive suffer not only from social and academic lag, but also from career development discontinuity. Unlike the average student who attends school regularly, chronically disruptive student is often denied or excluded from programs because of his asocial conduct. The longer the interruption of the career program the more critical will be the long range educational and vocational problems that face the student. Consequently, the development of an integrated academic-vocational program must be viewed as a means through which related learning experiences are introduced and taught. The integration of the two formally separate curriculums can be an effective mechanism to accelerate the student's lagging program.

Procedures governing the development of such programs would require that all agencies provide a comprehensive program of special education services. These services include:

1. A viable organizational and financial structure.
2. Procedures for identifying and evaluating programs and services.
3. Continuum of options which incorporate appropriate instructional programs and supportive services.
4. Qualified personnel who can provide a wide range of services.
5. Appropriate and adequate facilities, equipment, and materials.
6. Functional relationships with public and private agencies which can supplement or enhance the public school's special education programs.
7. Interaction with parents and other concerned persons, which facilitates the educational development of chronically disruptive youth.
8. Procedures for internal evaluation of the programs and services.

9. Continuous planning for program growth and improvement based on internal and external evaluation.

A majority of the programs for disruptive youth have followed the work-study approach. A criticism of this approach has been the continuance and promulgation of "watered down" curricula, focusing on academic content and not on an integrated curriculum. Mason and Haines (1972) have developed a strategy which they believe will provide a more effective work-study program. The strategy is designed to achieve a variety of goals.

These goals are:

1. To keep students (under-achievers and potential dropouts) in school part-time while they obtain needed general education.
2. To help students to explore the world of work and to assist them in occupational choice-making.
3. To help these students with personality and behavior problems.
4. To help the students earn money.
5. To provide practice for what has been learned in the classroom and to assist in the transition from school to job.
6. To develop general and specific occupational skills, knowledges, and attitudes, particularly those not readily available in a general curriculum.

Career and Career Preparation

The prevocational experiences provided for the disruptive adolescent should encompass an understanding and awareness of the wide range of careers available in our society. They must explore several specific clusters of careers through hands-on experiences and field observations. As they near the completion of their program during the junior and senior years of school, students pursue their selected occupational area exercising one of the following options:

1. Intensive career preparation for entry into the world of work immediately upon leaving high school.
2. Preparation for post-secondary career education.
3. Four year career preparation.
4. Preparation for adult continuing education.

The approach to career cluster development uses existing families of careers and identifies specific careers under each cluster in which individuals such as the exceptional student may have the interest and the ability to pursue. A description of specific vocations encompasses physical demands, working conditions, training time and general educational development needed. These descriptions of careers are found in either the Dictionary of Occupational Titles (1965) the Dictionary of Occupational Titles Supplement (1968) or the Supplement of the Occupational Outlook Handbook (1974-75). This system of career cluster development is a more general method and does not specifically describe vocations as they exist in the local community where the disruptive youth resides.

The following approach to career cluster development is advocated by the authors as a method to utilize the local community in developing more relevant instructional units.

Personalized Career Education Cluster Development

The following steps are taken to develop career clusters for the disruptive youth:

1. An assessment of the individual's affective, cognitive, psychomotor and vocational competencies through a differential diagnosis is conducted in order to identify strengths as they relate to particular career demands.
2. A survey of the local community to identify businesses, industries, and career stations which are available and appropriate for disruptive youth.
3. Once these business and industrial sites are identified in the local community, a breakdown of the vocations available at each site is developed in the following manner:
    a. Every vocation within a particular business, industry or station is identified.
    b. An organizational flow chart of every vocation within a particular site is identified and listed from the most to the least sophisticated.
    c. These vocations are organized into a cluster.
    d. Each vocation is then broken down into: major tasks required, physical demands required on the job, working conditions, the physical environment of the job, and training time required to effectively perform on the job. This includes the knowledge and abilities necessary to

satisfactorily hold this job, and the general educational development required to obtain the job.

e. A job task analysis is computed on every major task identified in each specific career.

Programming Steps

Besides failing to provide a system which integrates the academic and career curriculum, the majority of programs inadequately proceed through the essential steps in orienting the student to the world beyond his home and school. This orientation must be supervised and structured so the student is exposed to the full range of opportunities, which will better prepare him for the adult world of work.

The following range of experiences are recommended:

1. SURVEYING: This experience provides an awareness of academic needs and career availability in the community. These experiences can be accomplished through field trips, movies, video taping, printed materials, and cassette slide presentations.
2. OBSERVATION: Here the youth spends short periods of time at a specific retail store, industry or orientation site developing a better understanding of particular vocational directions.
3. WORK EXPERIENCE: At this level actual experience at a learning center in work situations or simulated work situations are provided. Similar experiences can be made available to the youth at training stations in the community, such as retail stores, industries, or special workshops. The academics

are generally directly related to the work experiences, but when appropriate it may have a global direction.

4. WORK STUDY: This phase has a general vocational curriculum which is related to the employment or career planning program the youth is developing outside the educational setting. The youth will learn skills on the job and relate his academic and vocational work in the community to his classes.
5. CAREER COOPERATIVE EDUCATION: This type of program is designed to provide the student with a sequence of academic and laboratory experiences in-school which prepare him for a specific career or career family that he will pursue upon completing his schooling. While working in the community he is closely supervised on the job by his employer and by a staff member assigned as a coordinator from the school.
6. COMMUNITY WORK: This is the final stage in the vocational program for the student. Upon completing formal schooling he will work independently in the community at a job he has been prepared for while attending school.

Career Education Development Press

To successfully orchestrate and carry through such an integrated program, teachers, psychologists, psychometrists, counselors, work coordinators, shop instructors, and administrative personnel must be harmoniously fused at a Vocational Development Diagnostic Center. For too long, programs for the disruptive youth have concentrated on the psychological and not on the educational aspects of the vocational preparation process (Gadlin, 1966, & Sabatino, 1974). Only through the fusing of essential and appropriate personnel can a total integrated program be designed and successfully be accomplished.

There is a growing recognition of this point as demonstrated by the new programs now being designed by universities, state departments of education, and local school districts (Cooperative Occupational Education, 1974; Work Experience Career Exploration Program Guide, 1974; and Handbook for Career Guidance Counselors, 1975).

The first responsibility of such a multi-disciplinary team is the establishment of a diagnostic center. This center should assess the educational and career competencies of the student entering into the program. This evaluation process should include the assessment of sensory-motor, academic, social, and vocational orientation of the student. Only after relevant and appropriate assessment instruments have been administered tc the student, should a team review the student's competencies and weaknesses and lay out a general program. This program must include reading, mathematics, science, and specific vocational development skills. It is also within the purview of the team to recommend therapeutic counseling.

Diagnostic Procedures

The development of appropriate diagnostic protocol has been advocated by Brolin (1972) and Gellman (1968). They support the need to determine not only the vocational needs of the youth, but also the psychoeducational, medical, sociological, and psychological variables.

These authors contended that the two essential diagnostic areas are the vocational and psychoeducational, and that the medical, sociological, and psychological should be ancillary to the process. What must be delineated in any diagnostic protocol is the job effectiveness skills the student possesses, and how these ranges of skills interface with the established or planned personal goals.

Psychoeducational. This segment of the diagnostic procedure involves determination of the student's aptitude and academic skills, and vocational interests. Instruments such as the Wechsler Intelligence Scale for Children and the Wechsler Adult Intelligence Scale are used to measure intelligence; the Metropolitan Achievement Test is used to measure achievement; the Beery-Buktenica Visual Motor Integration Test is used to measure sensory-motor abilities; the Reading-Free Vocational Interest Inventory is used to measure manipulative skills; and the General Aptitude Test Battery (GATB and N-GATB) is used to measure aptitude and should be used in a screening battery.

Environmental Assessment

A. The evaluation of general behavior in a simulated work environment is used to determine those basic social skills an individual possesses for interacting with others.

B. The evaluation of jobs samples enables a classroom or ship teacher or a vocational counselor to determine the level of skills a student possesses in performing specific job tasks. Assessment batteries like the Singer/Graflex Systems, The Philadelphia Jewish Employment and Vocational Service, and the Tower Systems can be used for this purpose.

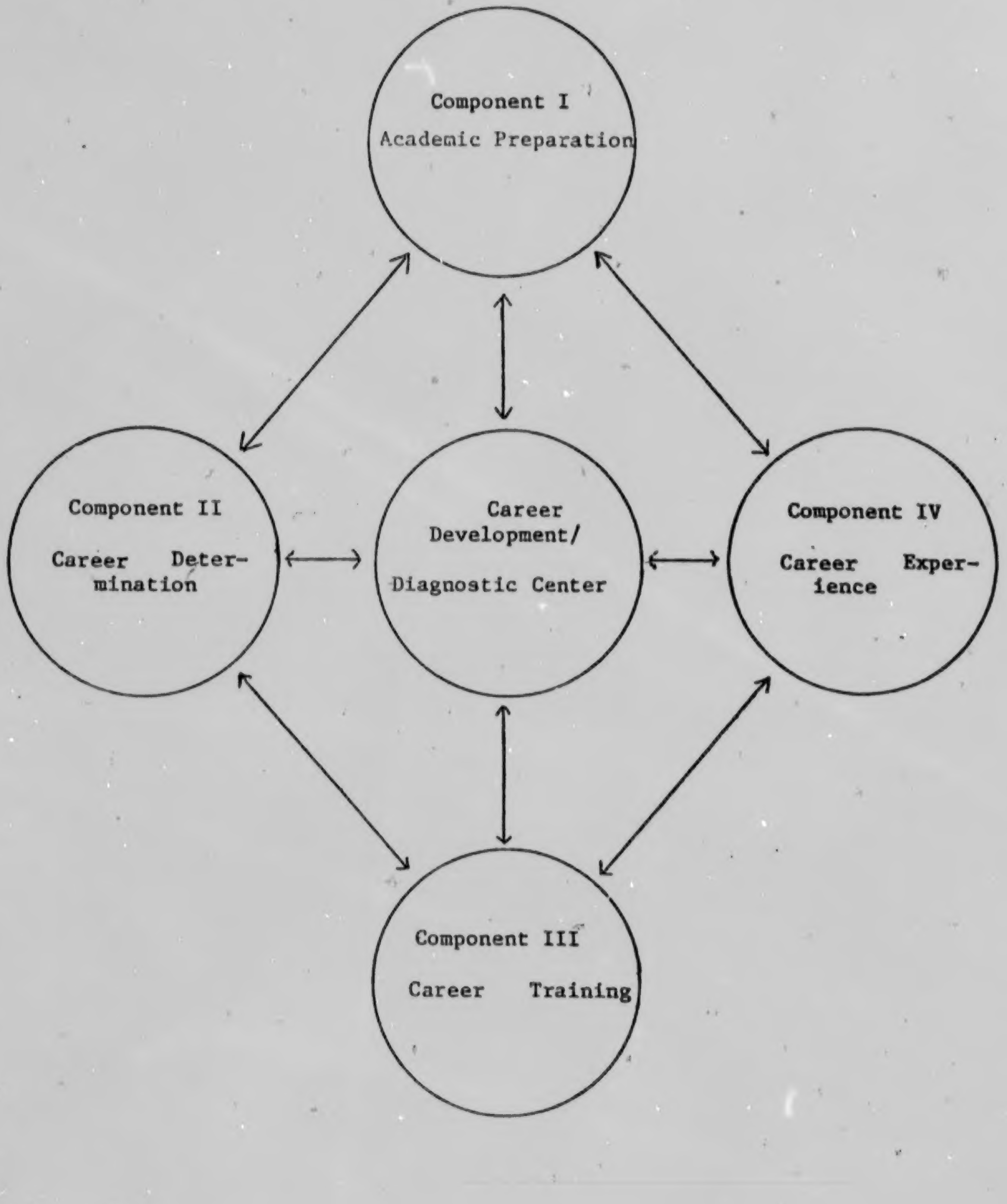
Ancillary assessment. This segment of the evaluation should be conducted only if the previous two segments fail to provide satisfactory data. Medical and psychological data have marginal value in establishing programmatic goals for the disruptive youth.

Once the general needs and directions have been established, the educational and counseling personnel can then, in conjunction with the student, establish a generally directed curriculum, providing the basic academic skills, and a specific curriculum, integrated with prerequisite information. This information must deal with four phases of daily life; finances, the law, health and safety, and social awareness.

The integrated program consists of five components. These components are interdependent. Without the implementation of each component the others will be weakened and the student preparation will be diluted. The five components are:

1. Academic Preparation. The academic program will be centered around the assessment findings and the student's vocational goals, training, and experience.
2. Career Goals. The goals must be determined with the student The goals must interface with his academic abilities and potential. Previous experience and the student's ability to gain from vocational training must also be considered.
3. Career Training. Training must be consistent with judgements as to whether the student has the ability, potential, or the interest in the general or specific area, and understands the implication of the vocational choice.

Figure 1


Component I
Academic Preparation
Component II
Career Determination
Career Development/
Diagnostic Center
Component IV
Career Experience
Component III
Career Training

4. Career Experience. To fully understand the implications of a vocational choice, the student must have some experience at a vocational site. Determinations of whether he has the skills, interest, and desire for training must be made.
5. Career Development/Diagnostic Center. This center is designed to assess the vocational needs of the handicapped student. However, individuals have the opportunity to return to the center if additional services are necessary. Within the center, diagnostic-evaluation techniques and ameliorative services are provided. Evaluation programs include an assessment of the individual's affective, cognitive, and psychomotor competencies. In this controlled environment, additional competencies are developed through personal adjustment, work adjustment, counseling, simulated work experience, application of basic academic skills and development of production competencies essential to meeting the demands of competitive employment. The Vocational Development/Diagnostic Center and its components add a dimension of precision and ultimate economy in programming for the career education needs of the handicapped.

Curriculum

Silberberg (1975) called for a career curriculum free of books. Sabatino (1974) recommended an instructional approach with pre-programmed high interest, low vocabulary material. This material would be specifically geared to the reading and interest level of the students and would interface with the students' career goals. While there has been some attempt at developing this material, a review of the literature revealed significant gaps in its availability. Siberberg (1975) recommended the extensive use of audio-visual equipment and guest lecturers to heighten the interest of the disruptive youth. Figure 2 represents suggested curriculum areas for disruptive youth in addition to basic skill development.

Essential Language

Chronically disruptive youth often lack the essential vocabulary to complete job applications and other socially vital forms. Without the compentency of filling out an application, these youth surely will be hindered.

Below is compiled lists of words, phrases, and abbreviations that these youth will eventually need to know:

Easier Reading Words. The words in this list are found in reading materials, first through third grades. A quick check of students' abilities in reading these words should be made prior to proceding to the more difficult words.

A

ABOVE
AFTER
AGE
ALL
ALSO
AM
AND
ANSWER
ANY
ARE
AS
AT

B

BACK
BE
BEEN
BEFORE
BEGIN
BEST
BLACK
BLUE
BORN
BOX
BROTHERS
BY

C

CAN
CARD
CARE
CARRY

D

DARK
DAY
DEAD
DID
DO
DONE
DON'T
DRAW
DURING

E

EACH
EAT
EVER

F

FIELD
FILL
FIRST
FIVE
FOR
FRIENDS
FROM
FULL

G

GAVE
GIVE

H

HAD
HAVE
HELD
HERE
HIGH
HOME
HOURS
HOUSE
HOW

I
I
IF
IN
INK
IS
IT

J
JOB

K
KIND
KNOW
KNOWN

L
LAID
LAST
LINE
LIST
LIVE
LIVING
LONG

M
MAKE
MANY
MOST
MOTHER
MUST
MY

N
NAME
NEXT
NO
NONE
NOT
NOW

O
OF
OFF
ON
ONE
OR
OUR
OUT
OVER

P
PAGE
PART
PAST
PAY
PLACE
PLEASE

R
RACE
RENT
RIGHT
ROOM

S
SEE
SHORT
SISTERS
SKIN
SMALL
SO
SOMEONE
SPENT
STOPPED
STORE
STREET
STUDY
SUMMER

T
TAKE
TEN
THAN
THAT
THE
TEEN
THERE
TIME
TO
TODAY
TRUE
TURN
TWO

U
UNDER
USE

W
WANT
WANTED
WAR
WAS
WEAR
WEEK
WERE
WHAT
WHEN
WHERE
WHICH
WHILE
WHO
WHOM
WILL
WILLING
WISH
WITH
WORKED
WORKING
WORLD
WOULD

Y
YES
YOU
YOUR

1st
2nd
3rd
4th

More Difficult Words

A

ACADEMIC
ACCIDENT
ACCIDENTS
ACCORD
ACCOUNT
ACQUIRED
ADDITIONAL
ADDRESS
ADMINISTRATION
ADVERTISEMENT
AFFLICTED
AFTERNOON
AGENCY
AGREEMENT
ALIEN
AMERICAN
ANSWERS
APOPLEXY
APPLICABLE
APPLICANT
APPLICANTS
APPLICATION
APPLIED
APPLY
APPLYING
APPRENTICESHIP
AREA
ARMED
ARMY
ARRESTED
ARRIVE
ASSIGNED
ASSIGNMENTS
ATTACH
ATTENDANCE
ATTENDED
ATTENDING
AUTHORIZATION
AUTOMOBILE
AVAILABLE

B

BELOW
BENEFITS
BIRTH
BIRTHDAY
BIRTHPLACE
BOARD
BOND
BRANCH
BRIEFLY
BUS
BUSINESS
BUYING

C

CALLED
CANCEL
CANNING
CASE
CAUSE
CERTAIN
CERTIFICATE
CERTIFY
CHANGE
CHANGED
CHARACTER
CHARGED
CHECK
CHILDREN
CHOICE
CIRCLE
CITIZEN
CITIZENSHIP
CITY
CKD.
COAST
CODE
COLLEGE
COLOR
COMPANIES
COMPANY
COMPENSATION
COMPLETE
COMPLETED
CONCERN
CONCERNING
CONDITION
CONFORM
CONSIDERATION
CONSIDERED
CONTACT
CONTINUED
CONVICTED
CORRECT
CORRESPONDENCE
COUNTRY
COUNTY
COURSE
COURSES
CREED

D

DATA
DATE
DAYTIME
DEFECTS
DEGREE
DEPT.
DEPARTMENT
DEPENDENT
DEPENDENTS
DESCRIBE
DESIRED
DETAILS
DISABILITIES
DISABILITY
DISCHARGE
DISCHARGED
DISCRIMINATION
DISMISSAL
DISPOSITION
DIVISION
DIVORCED
DOCTOR'S
DRAFT
DURING
DUTY

E

EARNINGS
EDUCATION
ELEMENTARY
ELIGIBLE
EMERGENCY
EMP.
EMPLOY
EMPLOYED
EMPLOYER
EMPLOYERS
EMPLOYMENT
ENGINE
ENTER
ENTERED
ENTERING
EPILEPSY
ETC.
EVENING
EVIDENCE
EXAM
EXAMINATION
EXAMPLE
EXCEPT
EXEMPTIONS
EXPECTED
EXPERIENCE
EXPIRE
EXPLAIN
EYES

F

FACTORY
FALSE
FAMILIAR
FAMILY
FAVORITE
FELONY
FEMALE
FIDELITY
FINAL
FIRM
FOLLOWING
FORCES
FOREIGN
FOREMAN
FORM
FORMAL
FORMER
FT.
FULLY
FURNISH

G

G.I.
GIVEN
GLASSES
GOV'T
GRAD.
GRADE
GRADUATE
GRADUATED
GRADUATION
GRAMMAR
GRANT
GROSS
GROUNDS
GUARD

H

HABITS
HAIR
HANDED
HANDICAPS
HAPPENED
HD. (HEAD)
HEALTH
HEARING
HEART
HEIGHTS
HERNIA
HIGHEST
HIRED
HISTORY
HOBBIES
HOBBY
HOURLY
HUSBAND

I

ILLNESS
IMMEDIATE
IMPAIRMENTS
IMPORTANT
IN.
INCLUDED
INCLUDING
INCLUSIVE
IDENTIFICATION
INDUSTRIAL
INFORMATION
INITIAL
INJURY
INSTRUCTIONS
INSURANCE
INTEND
INTERESTS
INTERESTED

INTERVIEWED
INTERVIEWER
INTERVIEWERS
INTRODUCED
INVESTIGATE
ISSUE

J

JUNIOR

K

KIN
KIND
KNEE
KNOWLEDGE

L

LANGUAGE
LAW
LBS.
LEARNED
LEAST
LEAVE
LEAVING
LEFT
LEGAL
LENGTH
LENSES
LIABILITY
LICENSE
LOCAL
LOCATION

M

MACHINES
MAIDEN
MAILING
MAJOR
MALE
MARINES
MARITAL
MARRIAGE
MARRIED
MATERIAL
MECHANICAL
MEDICAL
MEMBER
MGR.
MIDDLE
MILITARY
MINOR
MISC.
MISCELLANEOUS
MISDEMEANOR
MISSTATEMENT
MO.
MONTH
MONTHLY
MOTOR

N

NATIONAL
NATIONALITY
NATURALIZATION
NATURALIZED
NATURE
NEAREST
NEGRO
NEIGHBORS
NEWSPAPER
NIGHT
NO.
NOTE
NOTICE
NOTIFIED
NOTIFY
NUMBER

O

OBJECT
OBLIGATE
OCCUPATION
OCCUPATIONS
ODD
OFFENSE
OFFICE
OMISSIONS
OPERATED
OPERATION
ORDER
ORGANIZATION
ORIGIN
OTHER
OTHERS
OUTSIDE
OVERSEAS
OWN

P

PAPERS
PARALYSIS
PARENTS
PERCENTAGE
PERMANENT
PERMISSION
PERMIT
PERSONAL
PERSONS
PETITION
PHONE
PHOTO
PHOTOGRAPH
PHY.
PHYSICAL

PHYSICIAN
PLANT
P.C.
POINT
POSITION
POST
POSTAL
POUND
PRECEDING
PREFER
PREFORMED
PRESENT
PRESENTLY
PRESSURE
PREVIOUS
PREVIOUSLY
PRINCIPAL
PRINT
PRIVILEGE
PROFESSION
PROMPTED

Q

QUALIFICATIONS
QUALIFIED
QUESTIONS
QUIT

R

RACE
RAILROAD
RANK
RATE
REACHED
REAL ESTATE
REASON
RECEIVE
RECEIVED
RECEIVING
RECENT
RECENTLY
RECOMMENDED
RECORD
RECREATION
REFER
REFERENCES
REFERRED
REFUSED
REGARDLESS
REGISTRATION
REGULAR
REGULATIONS
REJECTION
RELATING
RELATIONSHIP
RELATIVES
RELEASE
RELEASED
RELOCATION
REMARKS
RENTING
REPLACEMENT
REQUEST
REQUIRED
RESERVE
RESIDENCE
RESIDENT
RESORT
RETAIL
RETIREMENT
RETURN
REVERSED
REVOKE
RIGHT

S

SALARY
SALES
SATURDAYS
SCHOOL
SCHOOLING
SEASONAL
SECONDARY
SECURITY
SELECTIVE
SEPARATED
SEPARATION
SERIAL
SERIOUS
SERVE
SERVICE
SEX
SHIFT
SIDELINE
SIGNATURE
SINGLE
SKILLS
SOCIAL
SPACE
SPECIAL
SPECIALIZATION
SPECIALIZED
SPECIFY
SPOUSE
S.S. NO.
ST.
STARTED
STARTING
STATE
STATEMENTS
STATES
STATIONARY
STATUS
SUBJECTS
SUBMIT
SUBSEQUENT
SUBSIDIARY
SUFFICIENT
SUFFICIENTLY
SUGGESTION
SUMMARIZE
SUNDAYS
SUPERVISOR
SUPPORTED
SURETY
SUSPEND
SYSTEM

T

TAKEN

TELEPHONE
TEL. NO.
TITLE
TOTAL
TRADE
TRAFFIC
TRAINING
TRAVELING
TREASURY
TROUBLE
TYPEWRITERS

U

UNEMPLOYED
UNEMPLOYMENT
UNIMPORTANT
UNION
UNITED
UNIV. (UNIVERSITY)
UNIVERSITY
UNKOWN
U.S.
USUALLY

V

VEHICLE
VEHICLES
VETERAN
VIOLATION
VIOLATIONS
VOCATIONAL
VOID

W

WAGES
WEAR
WEEKLY
WRIGHT
WHATSOEVER
WHETHER
WHITE
WHOM
WIDOW
WIDOWED
WIFE
WITHHOLDING
WITNESS
WORK
WORKED
WOUNDED

WRITE
WRITTEN

Y

YEAR
YR
YRS.

Z

ZIP
ZONE

The following words have similar meanings. Although they are not synonyms they are grouped in this manner because their meanings are very similar in the way in which they are used on application blanks. "Previous," "recent," and "former" are taught as having similar meaning because they all refer to past employment. In the teaching of these words care must be taken to distinguish between their correct meanings.

The following list is not all inclusive and the personnel may wish to enlarge it as the situation dictates.

phone---telephone---tel. no.---phone number

relatives---relationship---dependents

previous---recent---former---previously---recently

type---nature---kind

position---job---occupation---duty---work done

experiences---training---trade---profession

rate---pay---wage---salary---earnings

foreign---alien

training---apprenticeship---experience

handicap---defect---disability---illness---injury

education---academic training---school level completed

information---data---statements

factory ---company---firm---organization

photograph---photo---picture

postal---P.O.---mailing

referred---recommended

hobby---recreation---other interests

health---physical condition

month (both the written name and number of month should be recognized and understood, e.g., September, Sept. 9).

special---particular---specific---additional (not to be confused with Special Classes)

present---current

record---past employment---history

PHRASES AND TERMS

PERSONAL DATA

.Print name in full
Maiden name
Social Security number
Citizen of United States
Marital Status
Dependents
Bond available?
Physical impairments
Relationship
Color Hair? eyes?
Contact lenses
Medical Examination
Name of Spouse
Injuries or major operations
Where employed?
Withholding tax
Physical defects
Felony or misdemeanor
Date of birth
Mother's maiden name
Post Office zone no.
Fidelity or Surety bond
Nature of illness
Left handed Right handed

EDUCATION AND TRAINING

Courses or subjects
Circle years completed
Graduated
Years attended
Jr. College
College or University
Last grade completed
Post high school
Vocational education

MILITARY RECORD

Branch of service
Rank at entrance
Rank at discharge
Draft or Reserve Status
Disability Benefits
Type of Discharge
Reserve Unit
Active
National Guard

JOB INTEREST

Types of work
Starting salary expected
Object to traveling
Object to relocation
Relatives or friends in our employ
Relationship
Work desired

EMPLOYMENT HISTORY

Employer's name
Business address
Nature of work
Wages received
Reason for leaving
Dates of employment
Present employer
Worked as:
Special skills
Machines operated
Position held
Previous employer
Length of service

REFERENCES

Character and habits
Relatives or friends
Occupation
Mailing address

EMERGENCY

Notify in case of emergency
Nearest telephone

SIGNATURE

True, correct and complete
Misstatement or omission
Sufficient ground for discharge
Dismissal without notice
Knowledge and belief
Affirm that
Noted thereon

MISCELLANEOUS

Applicant should not write on this page
Do not write below this line
Continued on other side
Gross weight
Date available

Abbreviations

These abbreviations often appear on the application blanks and can be unique to employment applications taught in conjunction with practice in completing job forms.

month—mo

social security number--social sec. no.--s.s. no.

account—a/c

number—no.

telephone number--tel. no.

year—yr.

business--bus.

physical--phys.

department—dept.

salary--sal.

university--univ.

employed--emp.

female--f.

male--m.

graduate—grad.

example—exam.

head—hd.

inches--in.

feet--ft.

pounds--lbs.

manager--mgr.

post office—P.O.

Rural Free Delivery—-R.F.D.

Management Tactics

Instructional approaches and materials without appropriate behavioral management tactics are ultimately doomed when working with the youth who has experienced years of school frustration. An effective teacher should be acquainted with the theories of Skinner (1968), Bandura (1969) and Lazarus (1971). The application of these theories are contained in the programs of Hewett (1968), Peter (1965), Kunzelman et al. (1970), and Smith (1970).

Each of the theories and programs acknowledges the necessity of moving from the concrete reinforcement to more abstract social reinforcers. The literature also supports the thesis that reinforcement procedures must consider not only the production phase of learning but also time factors. Too frequently educators have reinforced only the completion of a task--referred to as a ratio measure. They have not supported the length of time the student will work at a task (interval measure), nor have they measured the intensity of the student's involvement in an activity.

In working with an adolescent, baseline behavior (the level at which the student is operating in a specified area before intervention must be pinpointed so teacher and student know where they are and where they are going. Once this has been determined, the teacher and student can develop meaningful and realistic goals and objectives as they relate to reading, mathematics, social studies, science and vocational development. This type of behavioral management can be best implemented through the use of performance contracting.

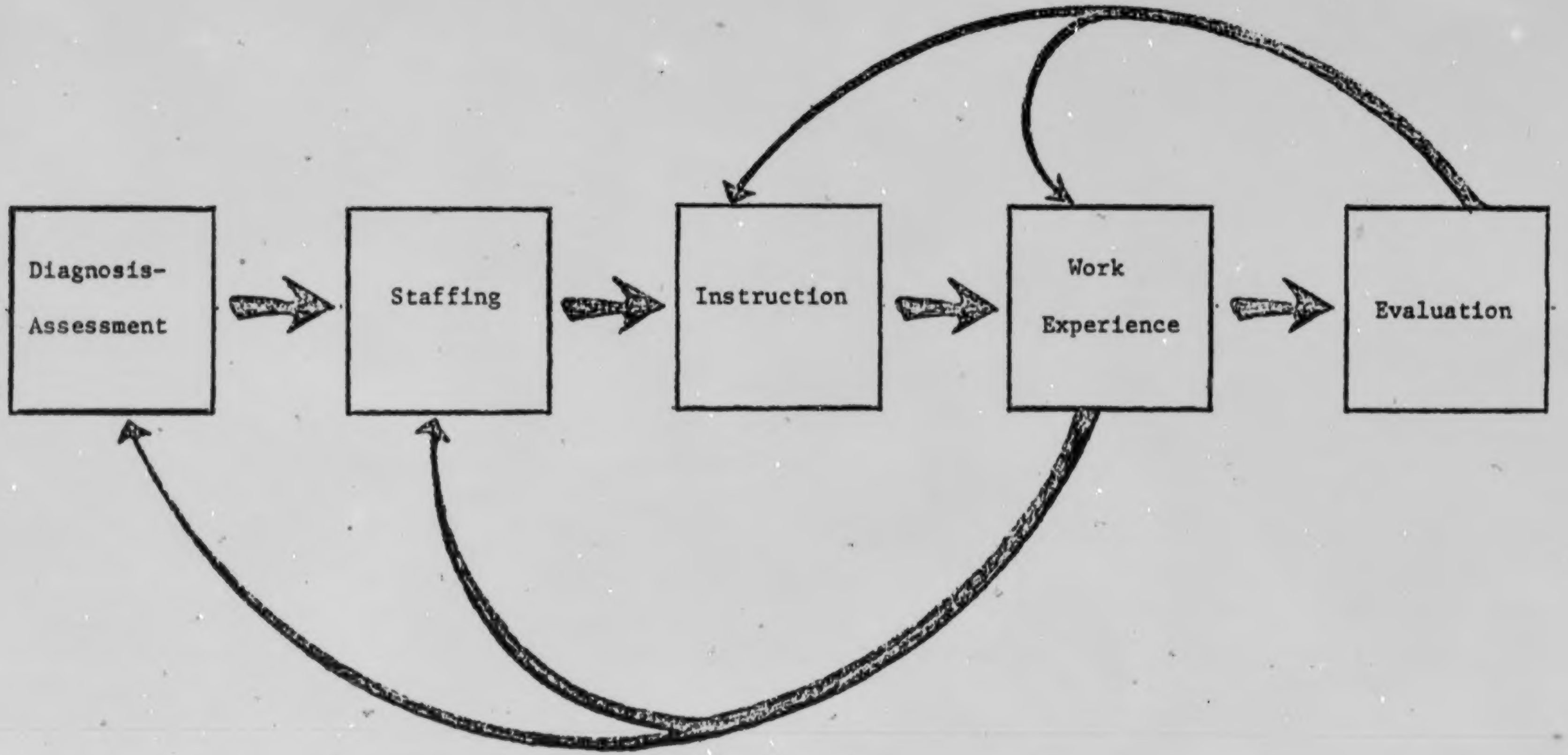
Performance contracting. Performance contracting is the forming of an agreement between a teacher and a student. In the agreement, the student acknowledges that for a specified quantity of performance he will receive a reward (e.g., money, tokens, food, or free time). Before the performance contract is initiated the diagnostic-assessment process must be completed. From this data the teacher can establish the current level of performance of the student. Among the types of instruments used in the diagnostic-assessment process are intelligence, aptitude, achievement, and criterion measurement tests. Each of these instruments enables the instructor to more aptly identify the student's skills and interests.

Once the baseline data has been determined, the teacher in conjunction with the student establishes realistic goals and objectives. If the student is unable, or not ready to reach work in consultation with the teacher, she alone establishes the goals and objectives. In addition, once realistic objectives are established, contingencies for completion of the specific quantity at a specified level of quality are determined.

When the student has reached the point of being able to work in concert with the teacher, the teacher must consult the student about objectives and contingencies. It is designated purpose of performance contracting that the agreement be a joint and not a unilateral decision.

Once every two to three weeks a review of the goals, objectives, methods and materials must be evaluated to determine whether the program is on track and on schedule. Often student and teacher, once the goals

Figure 3


Diagnosis-Assessment
Staffing
Instruction
Work Experience
Evaluation

and objectives have been pinpointed, neglect to determine whether the original conclusions were appropriate, relevant and effective. If they fail to meet the test of appropriateness, relevancy, and effectiveness, then they must be redrawn. Evaluation and re-evaluation is an essential component of any program.

Reinforcers during the remainder of the program must be continuously evaluated to measure student effectiveness. The re-evaluation process must again include the use of criterion tests which measure academic development/performance charts which measure overt behavior, and student-teacher conferences which pinpoint personal attitudes as they relate to achievement, general behavior, and self-image.

Token economy. One type of reinforcement technique is a token economy. In brief, positive behaviors and attitudes are reinforced by "good" teacher written assessments, or a promise to pay a specific amount of tokens, token-money surrogate. Undesired behaviors are negatively reinforced, also by such assessments; this is done through a system of fines either by subtracting tokens from a student's account or in the case of serious "negative" write-ups or point write-ups. All staff members serve as reinforcing agents and can issue the appropriate write-ups. All staff members serve as reinforcing agents and can issue the appropriate write-up. The means of attaining the good write-ups and situations involving negative write-ups are clearly defined for each student during the orientation process prior to entering the formal program. A few weeks in the program with exposure to the system finds most students motivated for earning the tokens. Earning the tokens serves three vital functions: (1) an immediate reinforcer of positive behavior; (2) an educative tool teaching basic concepts in finance management; (3) a concrete demonstration to the student that he is capable of achieving. The lack of positive attitudes and self-esteem toward the ability to achieve is a basic weakness of the disruptive youth. For specific information on this type of behavioral modification, see chapter

Model Program

Any program developed by a residential center or public school must establish clear operational procedures for assessment of the students' skills, delineate how a program will be provided, and the types of experiences the youth will be provided. In addition, the personnel who will participate in the career program must be identified. Personnel considered to be most effective, with the disruptive youth are Special Education teachers, pre-career counselors, a psychometrician or school psychologist, and a work experience and/or a job coach. One individual, possibly a career coordinator, ought to be given overall program management responsibilities.

Once the disruptive youth has entered the program, it is recommended that the program procede through five steps.

1. Diagnosis-Assessment. At this level the student is given a selected test battery (N-GATB, Durrell Reading Test and a Selected Interest Inventory) to evaluate his basic aptitude. Also, the pre-career counselor interviews the individual to identify attitudes toward work which may effect success or failure on the job, and determines

the general career orientation of the youth.

2. Staffing. A conference is held at this point with all involved, or soon to be involved personnel. Past school and institutional records, in addition to new diagnosis-assessment data, are used to determine the youth's recommended direction in schooling, training, and job experience.

3. Instruction. Here the youth begins the specified program outlined in the staffing. The program may involve regular schooling, job-study, technical training-study, and/or pre-career orientation. The intent of this level is to provide the disruptive youth controlled experiences, such as a specific job preparation or training in specific skills which will enable him to develop a career profession.

4. Work experience. This level functions as an integral part of level 3. This is the point when the job coach assists the youth in adjusting to the world of work. The coach also acts as an intermediate between the youth and the employer in the event a misunderstanding develops.

5. Evaluation. The staff reassembles to assess the progress of the student and determines what new skills and experiences ought to be provided the youth.

In the event that a difficulty with the program at either level 3 or 4 occurs, the youth can be reassessed and programmed so that his needs and levels of competencies can be accounted for in the revised curriculum.

Conclusions

For too long chronic disruptive youth have been treated by public schools, courts, and correctional personnel as societal burdens. These youth have been provided programs that have been ineffective, watered down, and often irrelevant. The predominant skills and training of personnel working with such youth are in psychology, not education. Thus the treatment has failed to meet the educational and social needs of the student.

The literature indicates that many of these youth are not necessarily retarded or emotionally disturbed. They are in fact, largely turned off and tuned out. What they need is not more therapy and advice, but rather, career direction. Given these personal directions, the disruptive youth can begin to perceive a purpose to his academic and vocational experiences.

Currently, many disruptive youth view educational programs as irrelevant and non-productive, and the efforts in developing and redeveloping meaningful programs for such youth have not proven to be successful. The reason is that they have failed to incorporate the academic career, and personal needs of each student. If society is going to provide these youth a meaningful educational experience which will enable them to contribute to society, then it is essential that a well integrated program be developed. This requires that the schools, the courts, and the residential Centers join with other state and community agencies, such as the Department of Employment, the Rehabilitation Services, and the United Way so that the transition from training to employment is smooth and successful.

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Ascertaining Vocationally Related Behaviors

R. Wayne Jones and Robert L. Blaney

Georgia State

David A. Sabatino

Northern Illinois University

Running Head: Ascertaining Vocationally Related Behaviors

Ascertaining Vocationally Related Behaviors

Educators have traditionally viewed vocational preparation as an all or nothing entity. The value placed on vocational training generally reflects the economic future of American society in general. There is a great deal of factual data which support the fact that the average life time earnings of a college graduate nearly triple those of the non-college person. The result has been that social prestige and the conditions related to the "good life" in middle America have been associated with a college education. The competition for college entrance has fostered the tracking of youth into college bound programs as early as 7th grade.

The difference between college preparatory and vocational education tracks has historically been significant from several standpoints. First, the intelligence of the two groups was notable. Secondly, youth with adjustment difficulties, or chronic disruptive behavior, no matter how intelligent were placed into vocational tracts. And finally, vocational tract identification was applied to the lower academic achieving students regardless of their career plans. In essence, the public schools historically have dichotomized academic and vocational career patterns of youth by creating an aura of "cream of the crop" around the academic youth.

The first real change came with the great depression. The early part of the Industrial Revolution had been marked with a need for manual labor and very little necessity for skilled labor. The depression focused on the restoration of many jobless by increasing their skill level by teaching trades. For the first time, the teaching of salable vocational skills seemed like a good idea.

The Second World War also forced a change in society's beliefs of the value of specific job skills. Educationally, the philosophy of liberal arts preparation as a value onto itself no longer seemed indispensable when skilled and semi-skilled manpower was needed to produce armaments at a necessary rate during the war years. Fast, efficient means of training a skilled labor force were learned. The principles of which were translated into high school trade and industry programs, replacing the old industrial arts programs. By the 1950's, vocational-technical high schools were being sponsored at the school district and county (intermediate unit) levels. No longer were the requirements for entrance into vocational programs less than for the academic high school programs. A new age of respectability was being achieved with the sharp increase in apprenticeship programs before entering the brotherhood of even many semi-skilled jobs, and an even sharper increase in earning power for the labor force in this country, who through apparent career planning had achieved skilled job classifications. None of the least of which, was the opportunities for gainful employment in the trades while Ph.D.'s in physics were searching for work.

The history of who should do what job is age old. Most of the work force in any generation selected a specific vocation not out of preference, but out of necessity. We have had the belief in this country that every person has talents and interests which best suit that person for some specific type of work. It has become increasingly important to match interests and aptitude to type of training for two reasons. First, the skill level of particular types of work is increasing in demand. No longer can one tackle most job training programs without adequate math, reading, or other requisite skills. Secondly, the cost of vocational training is higher than the cost of academic training. Failure to determine what a youth can do and desires to do may be expensive, both in terms of the youth's time and the expense of the vocational preparation.

Accurate assessment of the skills and interests of potential vocational career candidates is a highly desirable feature. This chapter shall explore specific vocational assessment processes, utilizing observations, structured interviews, and administering academic achievement and vocational aptitude and interest, tests. Providing career information centers, job stations, and work stations program administration will be described in the next chapter.

Establishing A Career Educational Program

There is no magic in tests. Tests are helpful in varifying or refuting the counselor or student's perceptions of interests and aptitudes. They do not supplant those perceptions, but merely supplement them. The testing process should always begin with an interview. The major purpose of the initial interview is not to obtain direct information from questioning. But rather, observational data from a relaxed get acquainted period. The necessity to establish a relationship is paramount, and all else follows.

Observations generally result in a systematic study of the youth. A realistic Gestalt judgement must be made of the youth because that is how the real world will view him. It will be necessary to play back some of the aspects of that Gestalt judgement in order to realistically assist him plan a career development program. It is generally wise not to do that until the relationship is well founded, however. It is far better to select one or two initial behaviors and work on those. Therefore, the observer *must* specify the particular aspects of the student that can be objectified as target behaviors. Generally, observations are made of:

1. Speech
2. Gross motor movement
3. Coordination
4. Attitude toward self
5. Attitude toward others
6. Attitude toward school and work
7. Vocational interests
8. Vocational experiences
9. Any obvious physical, mental, or social deficiencies
10. Any noteworthy characteristics of general appearance.

Based on these specific observations a general referent of the youths vocational strengths and weaknesses can be assessed. The major contributors such as 1) academic preparedness, his 2) attitude toward work, and 3) strengths that will enable him to achieve success at work are key factors in arriving at a workable career education development plan. That plan will include an assessment of the strenghts which will permit the youth to obtain success in learning job skills.

The coordinator is now prepared to raise three working questions which must be answered in preparing career education development plan.

These questions are:

1. What are the youths academic achievement skills relevant to specific vocational tasks?
2. What is the attitude of the youth toward himself, others, his family, school, society, and work?

3. What are his specific stated vocational interests and aptitudes, and can they be collaberated by tests?

To obtain information in answer to these three questions three types of assessment are needed.

1. Academic achievement
2. Personality
3. Vocational interests and aptitudes

Following the formal assessment, a discussion of the test results and the mapping of the career education plan should ensue. The formal test results will not provide the final answer on what the youth really likes to do or what he can do best. Therefore, it will be necessary, to provide all but a few of the older adolescents with the opportunity to explore various work tasks. This can be accomplished by exploring the skills that comprise basic vocational skill development and actual work experience on jobs. The exploration of related mini-work experience in the class room is called simulated job stations and real work experience is generally referred to as work stations.

The process generally utilized in career education classroom planning is:

1. A general interview
2. Follow-up interviews identifying specific target behaviors
3. The verbal interplay in developing a career education plan
4. Formal assessment of academic personality, and vocational interests and aptitudes

5. Simulated Job Station exploration.
6. Work study experiences

These six steps should establish a suitable career education plan and verify it. They do not in themselves constitute a career education plan, but provide the planner needed information. It should be kept in mind that all treatment programs must reflect the meaningfulness of the treatment environment in which the child is placed. In the case of incarcerated youth, this becomes even more important, because the length of sentence, type of home neighborhood, and feeling toward school are realistic determinates of what can be achieved in the goals of the final treatment plan.

It will remain impossible to attempt to enumerate many specific treatment interventions until enough is really known about chronic disruptive or norm-violating youth. It is even difficult to find systematic behavioral analyses of adjudicated youth, especially from an educational reference. The factors listed below are a few of the meaningful variables related to determining a given youth's program needs. These are:

1) Philosophy and treatment aims for specific programs.
2) Setting for treatment, including size and nature of living groups.
3) Budgeting and administrative control.
4) Relationship of community agencies to residential programs.
5) Type of intake selection data.

6) Determine sentence, release, or pre-release conditions.

7) Age groupings.

8) Selection and qualities of treatment personnel.

9) Inservice training and development of staff awareness, understanding insight and the abilitiy to take part in a wide range of relationships.

10) Balancing residential treatment and living with community treatment and living.

11) Role and nature of punishment.

12) Facilities consideration.

13) Recreational consideration.

14) Medical participation.

15) Specific preventative measures designed to inhibit delinquent subculture and attitudes.

16) Family involvement and preparation for return to the community with continuation of preventative programs.

The career education process flows as follows:

First Day Initial interview	Major question: Can he relate to the coordinator
First Week: Follow up interviews	Identification of target behaviors
Second Week Formal assessment	1. Academic achievement skills needed for job required 2. Personality factors 3. Vocational aptitudes and interests
Third and Fourth Weeks Job station	What task aspect does he enjoy and achieve success
Fifth through Fifteenth Week Work stations	What is his experience with short trials of on-job performance

Major outcome: A career education plan that integrates 1) academic work, 2) shaping and reshaping values and other personality factors, and 3) specific vocational interests and skill development.

Formal Tests

One question which is always raised by counselors, is what formal tests should be used. The answer is a generality governing the use of all formal tests. The test to be used should be 1) reliable, 2) easy to administer, 3) easy to score 4) easy to interpret 5) meaningful to the career goal being planned (relevant) and 6) necessary -- most tests give more information than is ever used.

A test battery should include:

1) Individual academic achievement tests of reading, spelling, and arithmetic
2) A personality test
3) Interest and aptitude test batteries which include subtests sampling the youths stated interests and aptitudes.

The general rules are:

1) Individual tests, or tests individually administered are better than group administrations
2) The reliability of a test must be known
3) Does the test assess the skill (target behavior) related to the question being raised in the management plan
4) Establish a general test battery and stick with it as meaningful information is gained in using tests that the examiner is confident in and comfortable using (familiar with)
5) There is no best text for anything, but tests of choice that measure certain human traits or functions.

To assist the counselor, a short review of specific academic achievement tests, aptitudinal tests, interest inventories, and personality measures will be discussed later in this chapter.

If comprehensive treatment programs are to be planned for adjudicated delinquents, psychosocial-educational and vocational assessment should include measures of a number of human traits and related variables. These would include at least some of the following:

1. estimate of intellectual capacity
2. neurological evaluation
    a. medical history
    b. review of medication
    c. behavior observations
    d. fine muscle motor control
3. academic achievement levels
4. reading diagnosis
5. math computation and concepts assessment
6. spelling assessment
7. study and organizational skills evaluation
8. personality assessment
9. self-concept evaluation
10. vocational interest patterns assessment

An estimate of an individual's intellectual capacity is needed for a number of reasons in the assessment of individual cognitive and social development. Behavioral scientists use such scores to predict rate of learning in a general sense.Individual measures of intelligence (eg., the Weschsler

Intelligence Scales; the Stanford-Binet) provide psychologists and trained educators with detailed estimates of capacity in a number of content areas. In the normal adolescent, there occur relatively even patterns of development as reflected by intelligence test sub-scores. In disturbed adolescents, however, these patterns show clusters of strengths and weaknesses. Awareness of individual variability can make a skilled teacher more competent in the selection of teaching techniques and materials which utilize the strengths of the given individual in overcoming apparent deficits.

The current data, collected from both adult penal institutions and records available on juvenile facilities, note the disproportionate number of incarcerated individuals who are found to be in the border-line or mentally retarded range. An individual limited in intellectual capacity is frequently unable to understand or to reason adequately in dealing with the environment. Such an individual frequently makes errors in judgment, is more easily swayed and influenced by others, and seems to lack the capacity for long-term planning.

Special education has demonstrated, however, that individuals with less than average intelligence can be educated to become self-sufficient. In vocationally-oriented uniquely structured academic classes, many such individuals make considerable gains developing marketable skills that ensure enlargement. Their general functioning in terms of their capacity to meet societal demands can also be improved. For these reasons, one must caution against any restriction of educational programs for children with less than average intelligence. And even more care should be taken to avoid labeling individuals, particularly if no effective remediation program follows such classification.

The measurement of intelligence has always raised considerable question. The most reliable and theoretically valid tests of intelligence, (including the *Wechsler Adult Intelligence Scale*, the *Wechsler Intelligence Scale for Children* - R (revised), or the *Stanford-Binet*, Form M) must be administered by a trained psychometrist. These instruments usually require approximately one hour or longer for administration. There are other available tests which purport to provide derived I.Q. scores; these tests sample far fewer behaviors and thus are basically screening tests. The *Slossen Intelligence Test* is a widely used instrument requiring approximately 30 minutes to administer. A number of the items on the SIT are drawn from the Stanford-Binet and some from the Wechsler Scales. The *Peabody Picture Vocabulary Test* is a screening intelligence test, which taps only receptive vocabulary. Paper-and-pencil I.Q. tests, such as the *Otis-Lennon* and numerous others, require a reading level at approximately fifth to seventh grade before validity can be ascertained. Further, a paper-and-pencil intelligence testing is only as accurate as the test conditions under which one is administered. During an individually administered test, the examiner can monitor the motivational level of an individual and pull from him information that he might not otherwise offer. On a paper-and-pencil test, particularly where there are multiple-choice items, many individuals who have had poor experiences in school merely mark answers to be finished with an unpleasant task. An invalid score is of no consequence to them.

Culture free intelligence tests, more recently labeled culture fair tests, are both difficult to find and at best only fair to the culture on which they are standardized. The early attempts at avoiding language have not proved successful. For example, the *Raven's Progressive Matrices*, the *Kohs Block Design Test*, and even the *Leighter International Performance Scale*, are still heavily influenced by social class and school experience. Because many delinquents have a very erratic school record and frequently come form low SES families, screening intelligence test instruments are of limited value. Furthermore, such measurements may lack meaningful data for important decision-making by staff. Individual estimates of intelligence are clearly the preferred mode of assessment.

Neurological Evaluation

Careful attention should be paid during initial intake for possible neurological handicaps. The epileptic and seizure-prone individual makes up a far greater proportion of adjudicated adults than is found in the general populations. The normal explanation for this observation is that incarcerated individuals lack the capacity to deal gratification and have low frustration tolerance or excitation limits. Such an organic-based syndrome is characterized by quick or sudden anger outbursts, difficulty in maintaining delay components for gratification, and general impulsivity. Unfortunately, no totally valid psychological test is available to specify neurological malfunction. Possible diagnostic techniques continue to receive considerable attention, particularly in the work of Ralph Reitan, as well as by numerous other investigators. At this time, both the administration and interpretation of instruments designed to detect neurological dysfunction are well beyond the training levels of the majority of people working in penal institutions. The procedures usually requires a coordinated staff of physicians, psychologists, and laboratories found only at medical schools or elaborate hospital settings in large urban centers.

Psychologists have frequently relied upon the use of tests, such as the *Bender-Gestalt* or other geometric copying tasks (*Berry Test of Visual Motor Integrations*, *Rutgers Drawing Test*, the *Winterhaven Test*) for one estimate of possible interference in motor coordination. The reliability of such diagnosis remains somewhat less than desirable. In general, however, these tests can detect the individual who demonstrates deficits in fine muscle-motor control coordination which suggest neurological dysfunction. The occurence of severe motor deficits on one of the above instruments should lead to a more extensive eamination by a neurologist, who could, when if needed, recommend medication or other appropriate treatment regimes.

Careful history may, likewise, provide significant clues in detecting neurological disorders. Fainting or blackout spells, the occurrence of a serious head injury, chronic and/or consistent headache patterns, marked difference in appetite or sleep patterns, and sudden change in behavior may give indications warranting more extensive medical examination.

Academic Achievement Levels

The public school system in the United States is essentially a lock-step grade system into which children enter at around age six and are graduated from somewhere between the ages of 17 and 19, (twelve years later in their record). It is expected that most children on the basis of their average I.Q. make such progress in a linear fashion.

Throughout the research literature, the academic achievement levels of institutionalized male delinquents have pointed to serious underachievement. It is now estimated that perhaps as many as 70% of adjudicated male delinquents have mild to severe learning disabilities. Sixty percent of delinquents in a recent sample by Sabatino, Mauser, and Skok (1975) were reported to have less than a 2.5 grade-level comprehension score while their chronological ages ranged from 12 to 17. Ability to read and perform simple math computation are essential skills required by contemporary society. (Individuals handicapped in these areas are always frustrated as well as existing at a decided disadvantage).

Standardized achievement tests are the keystone for measurement of academic perfromance levels both in public schools and apparently in the majority of institutional programs for chronic disruptive adolescents. Standardized achievement tests consist of samples of content-oriented questions presented in a multiple-choice format which requires grade level reading ability. They are usually administered with time limitations. A review of the specifications of tests would, on the other hand, indicate these are basically power tests. The time dimensions are given primarily because additional time does not increase the accuracy score for the majority of students. Examples of standardized achievement tests would include the Stanford Achievement Test Battery, Metropolitan Achievement Test Battery, the Iowa Test of Basic Skills, and numerous others. These tests are usually designed at specific grade levels for the elementary school grade levels and two or more forms for the high school student. The number of subscales on such achievement tests range from seven to ten or more. Time for the high school student to complete the total battery is between six and eleven hours.

The high school battery would be the most appropriate achievement test for the grade level of most adjudicated delinquents. However, the reading levels of many delinquents indicate that they would be unable to adequately understand either the directions or the questions. Minimum reading comprehension level requirement for understanding high school level standardized achievement tests is at least seventh grade and preferably higher.

These tests are highly inappropriate for children who have either poor school attendance records and/or serious language problems. It has been estimated that over 70% of males in facilities for juveniles have severe reading problems; 62% are estimated to have reading comprehension of less than 2.5 grade level. Depressed reading ability would preclude the use of the achievement tests at high school levels. In cases of suspected reading difficulty a comprehensive reading test would be a far more meaningful diagnostic instrument for selecting beginning instructional level than would an achievement test. Frequently confused with the group administered achievement tests, such as the _Stanford_ and the _Metropolitan Achievement Batteries_, is the individually administered _Wide Range Achievement Test_.

The WRAT is a screening instrument measuring word pronunciation (which the authors label reading), samples of math computations and a spelling test. This test, while normed on a large number of individuals, tends to overestimate by one year or more, the elementary grade equivalent scores obtained on the more inclusive standardized achievement tests. The *Wide Range Achievement Test* is frequently used because it can be administered quickly. Being only a screening instrument, it requires somewhere between 10 and 15 minutes for the average student to complete. The nature of the WRAT, then, suggests it to be inappropriate in determining estimates for entry level instruction or measurement of academic gain.

A final note of caution should be made. The average student does not show progressive grade level gains throughout the high school years. Whereas grade level scores for the elementary school level are generally associated with average proficiency, as one approaches the middle school years there is a decided ceiling effect. Only a smaller percentage of college-bound students continue to show yearly gains throughout high school. Percentile scores become more accurate indicators of average gain. There also occurs at early adolescence an increasing correlation between general intelligence capacity and achievement levels. The shift in source of variance is much more than may be directly attributable to instructional activities in a classroom. As stated previously, minimal reading competencies of approximately eighth grade level are required for successful completion for any of the high school achievement batteries. Students who do not possess this level of reading comprehension will always score considerably lower on these instruments, despite the fact that they may know the correct answers.

The usefulness of standardized achievement tests rests in their ability to provide grade level equivalencies for a variety of subject areas. One must be careful, however, in selecting inter-instructional level textbooks on the basis of these scores. These tests assume a series of instructional progressions which are not always followed by different textbook authors.

Reading Diagnosis

The cornerstone of literacy provided by our formal educational school systems is reading. Reading is more than the calling of words, but must also include comprehension, that is an understanding of content. Speed of reading, memory capapcity when reading silently, as well as oral fluency skills, are all important dimensions when making educational prognosis for adjudicated delinquents. The severe reading problems which characterize so many males in this population, is one that deserves paramount attention during the average six to nine months period of incarceration.

The average delinquent is decidedly not interested in school. He frequently has a high truancy record. School failure is another frequent component. These parameters are often the result of early problems in mastering reading and other basic language foundations. The study by Schorr, Massimo and Blank (1969) strongly suggests that lowered recidivism follows a marked enhancement of self-concept but the essential precursor of an improved self-concept is bringing the literacy skills, particularly reading up to meaningful societal levels, somewhere between fifth and seventh grade. Individuals in our society who cannot read at a minimum fifth grade level are seriously handicapped. They are unable to read sufficiently to get driver's licenses, complete employment forms, understand newspaper headlines, even to follow directions printed in buildings, and other areas for travel. They are illiterate in the broadest sense of that term and severely handicapped in their interactions with others. The frustrations and anger, as well as the constant sense of inadequacy, engendered by this deficit appears to be one of the prime motivators for the antisocial behavior described by McCandless and McDavid (1961).

The diagnosis of reading capacity can be accomplished quite easily. There are a number of effective test instruments, including the previously discussed standardized achievement tests, which essentially monitor an individual's ability to read words of increasing difficulty. The informal reading inventory asks an individual to read aloud to an examiner. Examples of these instruments are the Gray Oral Reading Test (Grades 1 through 12), the Durrell-Analysis of Reading Difficulty (Grade Level 1 through 7), the Gates McKillop Reading Inventory (Grades 1 through 8), the Spach Reading Tests, and numerous others. The basic requirement is that the individual be able to read and comprehend a paragraph of a certain grade level difficulty. If he can read with 80% accuracy on both decoding and comprehension skills, it is assumed that he can essentially read at that given grade level. If a student can read adequately at seventh grade level or better, no further exploration of reading is needed. If he cannot read adequately, it may be necessary to utilize more intensive diagnostic approahces measuring whole word recognition, usually utilizing Dolch list of words at varying grade levels and phonetic word decoding skills. One should measure various comprehension levels following both oral and silent reading, as well as listening comprehension as is the test framework fo the Durrell-Analysis of Reading Difficulty.

The Woodcock Reading Series is a comprehension reading diagnostic battery looking at both vocabulary level, word meaning, word recognition, and comprehension skills. This test requires 30 to 40 minutes for administration, but does provide the counselor who will be responsible for administration, but does provide the counselor who will be responsible for reading with a detailed analysis of strengths and weaknesses in the reading process as well as appropriate entry level for instructional material. This broader diagnostic approach should become much more widely used in all facilities than is currently evident. It is far more sensitive approach to understanding reading problems than is the grade level score reported by the Wide Range Achievement Test, which is only a phonetic decoding estimate.

The instruction of reading must be carefully tailored to the individual's needs. In recent decades, there has been an explosion of materials designed for poor readers. These materials typically are comprised of low vocabulary level but high-interest content which should increase their effectiveness with older students who are poor readers.

Peabody Individual Achievement Test

"The purpose of the Peabody Individual Achievement Test (PIAT) is to provide a wide-range, screening measure of achievement in the areas of mathematics, reading, spellings, and general information". No formal training is required to administer the PIAT. The standardization sample was drawn from nine regions in the United States. Test-retest reliabilities, based on a one-month interval are presented for the total test (.82 to .92, median .89) and each of the subtests: mathematics (.52 to.84, median .74), reading recognition (.81 to .94, median .88), reading comprehension (.61 to .78, median .64), spelling (.42 to to .78, median .65), and general information (.70 to .88, median .76). More confidence can be placed in the total score than in the subtest scores. Generally, this is an interesting test that needs greater raw score mean differences between grade levels and more reliable subtests.

Diagnostic Reading Scales

Publisher: McGraw Hill

Grade or Age: grades 1-8 and retarded readers in grades 9-12

Administration Time: 20-30 minutes

Cost: $1.10 per test, $9.60 per 35 record booklets and manual, $0.50 per manual, $1.90 per specimen set

Measures: 10 or 11 scores - word recognition, instructional level (oral reading), independent (silent reading), rate of silent reading (optional), potential level (auditory comprehension). 6 phonics scores - consonant scores, vowel sounds, consonant blends, common syllables, blends, letter sounds.

This scale presents a systematic approach to the diagnosis of reading skills at the elementary school level and, for retarded readers, at the secondary level. Estimates of reliability using K-R 21 are .87 to .96 and the predictive validity ranges from .65 to .78 using the instructional level as criterion. These levels are sufficiently high to justify their use according to the purpose specified. Readability estimates reflecting vocabulary and sentence length were used to select passages. Reliability and validity of the passages were assessed by using a variety of different samples and frequently the samples were inadequately described in terms of age or grade compositon. For this reason, accurate interpretation of information is difficult.

Diagnosis of Math Computation and Concepts

Determining an appropriate instructional level for mathematics is, for the most part, dependent upon standardized achievement test scores. Only recently have there been the introduction of more elaborate measures for diagnosis of math ability, particularly for the primary school grades. Key Math (American Guidance) is an example of a commercially available screening instrument covering a wide variety of practical and applied mathematics. The test takes approximately 35 minutes for administration and covers addition, subtraction, multiplication, and division, as well as the other general components of math, but moves into metric units, time, money, change, and word problem solution. A total of 17 variables or math activities are delineated by specific grade level proficiencies. The number of delinquents who do not have an adequate understanding of time units and money are large. Many lack a conceptual understanding of mileage units, distance, rate, and other applied math components which underlie the ability to do advanced science courses offered in high school. These are technical language handicaps which prevent such students from being able to compete in certain school courses, but more importantly block avenues for particular jobs and possibly careers.

Fountain Valley Teacher Support System in Mathematics (Richard L. Zweig. Associates, Inc.)

The Fountain Valley Teacher Support System (FVTSS) in Mathematics provides a direct link between a learner's performance on a series of diagnostic math tests and the materials that a teacher could use to teach the skills the learner lacks. The FVTSS in Mathematics contains a series of criterion referenced diagnostic tests which cover 785 behaviorally stated mathematics objectives suitable for grades K-8. The mathematics objectives cover nine distinct math strands: 1) numbers and operations, 2) geometry, 3) measurement, 4) applications of mathematics, 5) statistics and probability, 6) sets, 7) functions and graphs, 8) logical thinking, and 9) problem solving.

The direction for each of the tests are recorded on audio cassette tapes so that they may be used by groups or individual children. Each test is on a two-part sealed piece of paper designed in such a way as to be self-scoring. Number codes on the correction sheet indicate the objective each item was intended to measure. The teacher then consults the Teacher's Manual for a further explanation of the objective code or the Teaching Alternatives Supplement to the teacher's manual if she desires to know which basal mathematics texts or supplementary audio-visual programs cover that specific objective. The major basal tests and A-V supplements have each been analyzed in terms of the 785 objectives and cross referenced with page numbers in the texts back to each item on the tests. The end result in a direct link between the test and the instructional options.

The System allows for a great deal of flexibility on the part of the teacher. It permits the teacher to build an individualized program for learners with disabilities in mathematics. The cost for each level of the System (of which thre are 9) is about $135.00.

Prescriptive Materials Retrieval System (Select-Ed incorporated)

The Prescriptive Materials Retrieval System (PMR System) is a commercially available program which has cataloged 8,000 print and non-print instructional materials. The system was designed to allow a teacher to match learner characteristics with material characteristics. The system was formulated specifically with the handicapped learner in mind, i.e., a learner who shows a discrepancy between his expected level of achievement and his actual level of achievement. Using the PMR System a teacher can identify materials that teach a specific content, that are set into a specific format (e.g., filmstrip, programmed instruction, etc.) that are written according to a specific reading level, and that fit a specific instructional strategy. The problem with most retrieval systems (e.g., a card catalog in a library) is that you can only specify one variable at a time. With the PMR System several variables can be specified and a search done accordingly.

The PMR System has five basic components: (1) a thesaurus with over 400 descriptors (95 descriptors in mathematics) covering 12 subject areas; (2) a descriptor card file; (3) a code reading light box; (4) Materials Analysis Sheets; and (5) Basic Educational Skills Inventories in Math and Reading.

The Basic Educational Skills Inventory in Math (Select-Ed, 1972) contains 433 items that have been divided into 20 sections. Each of the items is cross referenced on the scoring sheet with a PMR System Number and descriptor. A student doing poorly in a section of the inventory might qualify for additional testing or be taught the skills he/she did not demonstrate to criterion. To locate materials that are aligned with the particular skill which each item or cluster of items is measuring, the teacher needs to go to the descriptor card file and locate the materials that are available for teaching the needed skill(s). If the teacher wishes to impose further restrictions on the type of material needed, an additional card can be pulled from the descriptor card file and superimposed on the content card. For example, the teacher may wish to specify that the material be in a workbook format. The descriptor card listing all workbook materials would then be pulled.

These two cards could then be placed upon the code reading light box to determine how many materials are available which meet the two requirements that the teacher has specified.

The teacher next copies down the acquisition numbers of the materials and reads a description of each material meeting the two requirements by consulting the Material Analysis Sheets.

The teacher can then acquire the materials from a distributor or on loan from a materials library. Approximately 55-65% of the materials cataloged in the PMR System are readily available in any well-equipped school district. If the materials are not available they might be borrowed.

The cost of the PMR System is about $2000. Periodic updates of the system are abailable at a cost of about $200.

Key Math (American Guidance Service)

Key Math (Connally, Nachtman, & Pritchett, 1971) is an individually administered diagnostic arithmetic test that contains 14 subtests organized into three major areas--Content, Operations, and Applications. Historically, diagnostic tests in mathematics have stressed the area of computation. Key Math has broadened this limited focus on math diagnosis and included math concepts and applications. Key Math has grouped the computational aspects of math under the rubric of Operations. Under the area of Content,

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the authors have incorporated items that deal with the concepts of Numeration, Fractions, and Geometry and Symbols. Applications deal with Word Problems, Missing Elements, Money, Measurement, and Time. Each of the subtests is made up of items which are arranged in order of increasing difficulty. Certain subtests require paper and pencil responses (the four subtests dealing with fundamental computations). All of the other subtests require oral responses.

Key Math provides the following information to the teacher: (1) a grade equivalent score which indicates how well the student performed on the entire test; (2) a profile delineating the student's relative performance in each of the 14 skill areas; and (3) a description of each item's content as well as an indication of the student's performance on that item.

Evaluation. Key Math is functional in content. It is very appropriate to use with children who are experiencing specific learning problems. It requires almost no reading or writing ability. The administration format is extremely easy to follow and gives the teacher the opportunity to be involved in relevant diagnosis. The manual also presents instructional implications based upon the child's performance on the various subtests. The authors have cross referenced each of the items on the test with specific behavioral objectives. They have included this information in Appendix A of the Manual. The authors also encourage the teacher to examine the item-by-item performance of the learner for the purpose of planning additional testing or a corrective program. The Diagnostic Profile makes it very easy to see a student's item performance at a glance.

Development of the instrument was initiated in 1961. Field tests have involved over 2900 pupils in 20 states. Item analysis was conducted related to the performance of 951 subjects in grades K-8. Normative data was gathered on 1,222 subjects in grades K-7. Correlations range from .94 to .97. Median subtest reliability fall in the range of .64 to .84. Validity: The selection and sequencing of content in Key Math was based upon an analysis of 10 major mathematics programs.

The Key Math Diagnostic Arithmetic Test has no upper limit for individual remedial use. It does not neglect the diagnosis of computational areas. However, by measuring other mathematical concept skill development, it supports the supposition that diagnosis of other reasoning processes that are crucial in the determination of a student's mathematical ability. The approximate cost of Key Math is $25.00.

Pattern Recognition Skills Inventory

The Pattern Recognition Skills Inventory (PRSI) is a measuring tool and a diagnostic device. It is designed to help educators and other specialists make certain determinations about students including levels of readiness for functioning in language and mathematics, levels of development of reasoning skills, and appropriate curricular approaches. PRSI can also be used to teach pattern recognition. The inventory is arranged in four equivalent sets. Each set consists of 24 pattern tasks which are presented to the subject. As the teacher presents each task, he or she instructs the subject to (1) view the model pattern sequence (2) view the four choice array of pattern sequences, and (3) make a choice from this array. Each student response is recorded on a response evaluation sheet. The response evaluation sheet provides information related to three areas: (1) pattern task performance, (2) stimulus dimension performance and (3) pattern performance. The author has related these performance areas to basic instructional implications in language and mathematics. The implications (concepts) are listed in figures that are present in the Teacher's Manual.

Evaluation. This instrument has been under development since 1972. During this time four research studies have been conducted involving the testing of over 500 students. Normative data were gathered on normal subjects (preschool through 4th grade) and handicapped students (primary, intermediate and junior high school).

PRSI is a concept-referenced tool which attempts to take a specific behavior (pattern recognition) and relate it to other conceptual areas (language and mathematics). It requires no reading on the part of the student. It was expressly designed for use by teachers. The instructional implications figure pertaining to mathematics provides concepts listed in developmental order. The real emphasis of the PRSI is in instructional implications. In that the inventory is comprised of four equivalent yet different task sets, the teacher may use the materials, if she so desires, to teach pattern recognition, a prerequisite skill to language and mathematical skill development. The approximate cost of PRSI is $85.00.

The practical understanding of math is the pressing problem for delinquents. The need for algebra, geometry, and trigonometry courses is less important in facilities for delinquents. The most pressing need is to raise practical knowledge of math applications so that these students can carry on effective commerce and understand the day-to-day economics required in our society.

Spelling Skills Assessment.

Spelling skills remain one of the most neglected diagnostic areas in all psychosocial evaluations. Few diagnostic instruments provide adequate measures of spelling ability. Yet, the majority of graded material in school requires written answers. The inability to express in writing what one may know is a decided disadvantage.

Careful attention should be made by teachers that an individual can spell sufficiently to express his ideas in writing. One can rarely spell better than he can read. Many adjudicated delinquents will show as much as a two-year lag in spelling below their reading comprehension level. Schools have frequently made this problem worse by certain teachers' careful attention to correct spelling and by repetitive drill for practice of errors.

The spelling test on the Wide Range Achievement Test and the short spelling test on the Durrell-Analysis of Reading Difficulty are both useful guides to approximate grade placement. The standardized achievement tests, such as the Stanford and Metropolitan, at the middle school years and high school years, evaluate spelling by a student's ability to correctly spot a misspelled word, but do not include in their batteries the actual written component. Many students may be able to tell you that a word is incorrectly spelled, but will be unable themselves to spell it correctly. Criterion reference instruments developed by individual schools may be the most appropriate manner for evaluating this area. It is not so much that one should stress the attainment of a particular grade level in spelling, but rather teachers should ensure that students have sufficient capacity to express their ideas up to their level of reading comprehension.

Study and Organization Skills Evaluation

Teachers, counselors, and psychologists when planning educational programs for adjudicated delinquents, should evaluate a student's ability to organize material, his ability to scan material to find useful facts, his reading speed, and his general approach to study matters. The poor school records of most delinquents allow one to predict that, as a group, they are poorer than the average high school student in terms of their ability to draw main ideas and ability to sequence important facts. They probably also lack the ability to take notes, outline, and condense material. However, these are teachable skills. They are effective ways of making academic tasks less difficult. Study skills assessment is an overlooked area of the majority of diagnostic procedures. While this area may not require assessment at time of intake, it should be carefully monitored by teachers as they work with students. Individual attention to study skill deficits should be made early during incarceration. Improved study skills combined with an appropriate individualized curriculum should increase a student's motivation toward school accomplishment. One such approach is the SQ3R approach developed by Robinson (1957). SQ3R is a systematic plan of study designed to enable the student to survey "S", what he is to learn, phrasing questions "Q", then reading "R", reciting "R", and reviewing "R", the material to obtain answers for those questions.

Self-Concept

Recent research investigators have indicated that several variables not normally assessed in psychosocial assessment are important variables for understanding both the past history of delinquents and assisting them in developing strengths and skills which should avoid recidivism. Self-concept has been shown to be an important variable for distinguishing between antisocial individuals and those others who take pride in both their own accomplishment and their position within society. But people who feel inadequate, lack confidence in their own capacity, who are angry and are frustrated by their deficits rather than confident in their capacities, are high-risk individuals not only for crime but for mental disturbance. Several formal tests for measurement of self-concept exist. The Tennessee Self-Concept Test measures both personal, family, social-ethic and other varieties. The Tennessee Self-Concept requires a seventh grade reading level. The instrument has surprisingly good reliability and adequate construct validity. Time for administration is thirty to forty-five minutes. The results are difficult to hand score but computer scoring is available. Interpretation is complex, but does provide normed estimates of areas of normalcy or felt inferiority. Important scores of self-concept are identified which could be valuable in remediation efforts.

Personality Assessment

Definitive assessment of personality dimensions remains an enigma to most practicing clinicians. Most agree that the personality makeup of individuals strongly contributes to their behavioral patterns, their predictability, and should be an essential dimension in a full diagnostic profile for a given individual.

Unfortunately, there are few concise and comprehensive measures of personality which can be used reliably with any population.

Projective techniques have been frequently utilized to make the final differentiation between normalcy and the clinical diagnosis of severe neurosis and psychosis. Such techniques as the Rorschach Inkblot Test, The Thematic Apperception Test, and numerous others require one or more hours for administration. The administration and interpretation of these techniques usually requires doctoral level training and considerable experience. Even the predictive or mechanical scoring systems as used by Kvaraceus in utilization of responses on the Rorschach Inkblot Test remain a cumbersome, time-consuming, and difficult administrative task for the majority of psychologists or counselors responsible for such activities in institutions. These techniques have low reliability and questionable construct validity. They do not appear to be promising practical approaches to the problems of delinquents.

Target behavior assessment has been suggested by Paul, 1966 and Ullman and Krasner, 1965, an appropriate behavior method for categorization of individuals who may then require more extensive and in-depth interview and/or clinical assessment techniques. One can predict with certainty that a significant number of inmates in juvenile facilities have serious emotional problems. At least, a portion of these would be more appropriately placed in facilities for the emotionally disturbed or state hospitals, rather than facilities for behavior correction which essentially characterize youth development centers. Target assessment techniques include observation of interpersonal relationships, consistency of behavior, classroom awareness, and other behavioral indices which could be gathered by individuals working with the client. The authors emphasize the difficulties with such approaches is that it does require careful base rate recording and communication between different professional staff as they interact with a given client across time. The practical information collected is directly usable by a staff for planning and/or reacting to the problems of a given delinquent.

A number of paper and pencil personality assessment instruments have been reviewed previously, in the section of this chapter reveiwing efforts to predict delinquency. Such inventories to measure personality development are frequently used with adults. The most frequently used instrument is the MMPI (Minnesota Multiphasis Personality Inventory). This test is read and answered by the applicant. Time requiremens are an hour or more, but the test requires a basic reading comprehension level of at least eighth grade capacity. For the majority of clients in facilities for juveniles this is an inappropriate instrument. Further, interpretation is a multi-factor comparison and cannot be done on the basis of scores alone. The MMPI may provide more inappropriate classification labels than it may provide useful insights for the staff personnel who will be working with the client. Considerable caution must be exercised in the use of this test, both in terms of the time and cost expenditure and the possibility of inappropriate application.

Consideration of personality testing and general personality functioning in an individual raises a very important issue about the effectiveness of counseling/psychotherapeutic techniques with individuals who may not show the usual symptomatology of personality disturbance. As discussed earlier in this chapter, definitions of delinquency at times imply a pathological state, but upon close inspection reflect rather a possibly socially appropriate learned subculture response, which is at conflict with more general societal norms. The effectiveness of bringing about behavior change by psychotherapy with average individuals has not been universally successful. Where it has been most successful has been with high-verbal, abstract reasoning college students. Considerable research has indicated that individuals with less than average intelligence do not generally do well in psychotherapy. The I.Q. of most institutionalized delinquent populations is well below average. Further, individuals with low verbal communication capacity, limited vocabulary, and experience are high risk candidates for verbal counseling or psychotherapy. Alternative approaches, such as group counseling, psychodrama, and activity-oriented therapies, have not published sufficient controlled studies to warrant their full applicability to juvenile populations. Intensive research with delinquent populations is needed matching careful estimates of personality function and examination of the effectiveness of treatment programs, including both psychotherapy and counseling; educational achievement programs, vocational development programs and milieu components provide the needed information to most appropriately place delinquents in optimal programs to generate beneficial change.

Locus of control, can be attributed to oneself or the environment. The measurement of this important dimension has developed in terms of the introversion/extraversion scale by Rotter (1959). A children's scale has been developed by Norwicki-Strickland (1968), which could have useful application considering the academic levels of most delinquents in many institutions. The scale can be read by the individual or administered orally. I.E. measurement is utilized frequently in current research. In general, the more internalized one is, the less likely he is to be swayed by his environment or by the influence of his peers. One's reliance on internal mechanisms has been shown to be an important dimension for the effectiveness of psychotherapy. Unfortunately, the average delinquent generally scores high on the extraversion component of the I.E. measurement. But those who show change toward an internalized state are usually considered to be showing positive progress and improvement. Considerably more research is needed, particularly with delinquents for the construct validity of this scale with regards to prediction of future recidivism. It is a promising approach, however, and one that should receive careful attention, particularly for problem children referred after their initial psychosocial evaluation and for individuals who are returning to youth development facilities. A brief description of several personality tests are included.

Minnesota Multiphasic Personality Inventory

Publisher: Psychological Corporation

Grade or age: ages 16 and over

Administration time: form A 30-90 minutes
form B 30-90 minutes
form C 40-75 minutes

Cost:

A) Individual Form - $32.00 per set of testing materials
4.20 per 50 record blanks

B) Old Group Form - $6.50 per 25 tests

$4.50 per 50 sets of answer sheets

$7.50 per manual

$2.00 per specimen set

C) New Group Form - $2.00 per test

$4.80 per 50 answer sheets

$4.50 per manual and answer sheet

$3.00 per specimen set

Measures:

14 scores

hypochondrias
depression
hysteria
psychopathic deviate
masculinity and feminity
paranoia
psychasthenia
schizophrenia
hypomania
social
question
lie
validity
test taking aptitude

The Minnesota Multiphasis Personality Inventory (MMPI) is another evaluative instrument which has been used to predict potential delinquency in adolescent children. The MMPI, although not developed specifically for the purposes of predicting delinquency, has become a rather standard reference measure in determining personality profiles. Briefly, this instrument developed by Hathaway and McKinely (1943) consists of individual and group administration forms and yields fourteen specific subscores reflecting a number of traits reflecting mental health state in general. Two scales, number 4, psychopathic deviate, and number 9, hypomania, have been shown to be predictive in certain cases. For a number of reasons, the MMPI is not well-suited as an instrument to predict juvenile delinquency. The MMPI is a measure of a person's response rather than being a strict test of psychopathology. Another criticism is the test is standardized for the age range of 16 years and older. Test interpretation is difficult and requires that the user must be sophisticated. Thus, because of the nature of this particular instrument, it is not suitable for administration to young adolescents. When used with a younger subject population, this particular instrument loses a good deal of its sensitivity because of the inability of younger individuals to fully understand the questions. Many of the test items would be inappropriate, or appear so, to a young subject. In addition, many teachers and parents object to specific questions regarding sexual activities and fantasy.

Despite these limitations, a number of studies have been undertaken using the MMPI as a predictor of potential delinquent tendencies. Hathaway and Monachesi (1951) have reviewed the various studies in which the MMPI was used as a predictive instrument. Hathaway and Monachesi, themselves, undertook a two-year follow-up study of high-school boys and girls who had been administered the MMPI. Their sample population included 4000 students. Examining these students two years later indicated that of the initial 4000 students examin ed, 591 had been arrested by the police or had court contact or both. An examination of the MMPI profiles of these delinquents indicated several scales showed promise in their ability to predict delinquent behaviors. The scales suggested as the best indicators of anti-social behavior were Scale 4, psychopathic tendency, and Scale 9, hypomanic propensity. Although these scales show certain promise in predictive ability, the major criticisms of the MMPI as an instrument to predict delinquency cannot be overlooked.

The Kvaraceus Delinquency Proneness Checklist and Rating Scale.

The Kvaraceus Delinquency Proneness Rating Scale (Kvaraceus, 1961) is a nonverbal rating scale comprised of 62 items. Each test item consists of four pictures which are based upon concepts relating to hypothesized differences between delinquents and non-delinquents. The subject is required to indicate the picture item which he likes the most and the picture item which he likes the least. The Kvaraceus Delinquency Proneness Rating Scale has undergone extensive validation with delinquents.

Kvaraceus (1961) has also developed another instrument for prediction of delinquency -- the Kvaraceus Delinquency Proneness Checklist. The checklist is a list of 70 background variables which delinquents have in common. This form is generally filled out by the juvenile's teacher, and responses to checklist items are answered by "yes" or "no".

Validity data has been gathered in a detailed, three-year study on 1,594 students in junior high school, grades 7 through 9, and also on a small sample of retarded youths in special classes. Criterion data were determined by the behavioral adjustments made by individuals in the sample to school, neighborhood, and community over a predetermined time. Predictive efficiency of these instruments were studied by sex and grade using the following four-point scale. Sample subjects were classified according to categories of (1) never offending, (2) minor violations in school, (3) minor violations in school and community, and (4) serious offenses, including police and court records. Despite the care taken with the validation procedures of this particular instrument, an unfortunate lack of consistency in the data indicates that caution must be exercised in the employment of this particular instrument for human decision making. A component in the validation procedure included a comparison between teacher nominations for potential delinquency as compared with the efficacy of this particular instrument in predicting potential delinquent behavior. It is interesting to note that teacher nominations proved to be in some situations, as efficient, and in other, more effective as predictors of future delinquency.

The California Test of Personality: A Profile of Personal and Social Adjustment.

The California Test of Personality (Thorpe, Clark, & Tiegs, 1953) consists of a series of five questionnaires designed to measure a number of personal and social adjustment components in children. Each of the five components i~~f~~s designed for a specific age range, including three years of age through kindergarten, four through eight years of age, seven through ten years of age, nine through sixteen years of age, and adults. The five components are basically uniform throughout this series. A major advantage of this particular test is the fact that it may be administered to groups, although individual oral administration is recommended for the primary scale.

The nature of the scales is generally directed toward items assessing self-adjustment and social adjustment. The self-adjustment scale is divided into six subtests which examine: (1) self-reliance, (2) personal worth, (3) personal freedom, (4) feeling of belonging, (5) withdrawing tendencies, and (6) nervous symptoms. The social adjustment scale is also based on six subtests which investigate: (1) social standards, (2) social skills,

(3) antisocial tendencies, (4) family relations, (5) school relations, (6) community relations.

Norms are provided for the evaluation of scores yielded by these particular tests. Anastasi (1968) suggests that internal consistency reliabilities are reasonably satisfactory for the total score yielded and also for the two subtotals. The etiology of self-adjustment and social adjustment is clearly apparent in delinquents. Again, however, no careful studies utilizing the California Test of Personality have been reported with incidence data for delinquents.

California Psychological Inventory (CPI)

Publisher: Consulting Psychologist Press, Inc.

Grade or age: ages 13 and over

Administration time: 45-60 minutes

Cost: $6.24 per 25 tests
$3.75 per 50 hand scored answer sheets and profiles
$4.00 per set of hand score stencils
$3.50 per 50 Dela Data answer cards
$3.00 per manual
$1.00 per specimen set

Measures: 18 scores

dominance
capacity for status
social presence
self-acceptance
sense of well being
responsibility
socialization
tolerance
good impression
communality
achievement via conformance
achievement via independence
intellectual efficiency
psychological-mindedness

self-control	flexibility
	femininity

The California Psychological Inventory, developed by Gough (1959), consists of eighteen subtests which are designed to evaluate the psychological adjustment of children from the ages of 13 years and above. In addition to the abilitiy to evaluate psychological adjustment, Gough (1966) also claims that based on this particular instrument it is possible to report a regression equation for predicting a tendency toward delinquency.

The eighteen subtests which comprise the California Psychological Inventory are as follows: (1) dominance, (2) capacity for status, (3) sociability, (4) social presence, (5) self-acceptance, (6) sense of well-being, (7) responsibility, (8) socialization, (9) self-control, (10) tolerance, (11) good impressions, (12) communality, (13) intellectual efficiency, (14) achievement via independence, (15) intellectual efficiency, (16) psychological mindedness, (17) sex ability, (18) femininity.

In all the California Psychological Inventory consists of 480 items, twelve of which are duplicates. Almost half of these items are taken from the MMPI. Items are responded to in a true-false manner. Subtest 7 (responsibility), subtest 12 (communality), and subtest 13 (achievement via conference) are response validity measures. The other fifteen subtests are based on traits which Gough has determined as the consequence of characteristics which he feels people are concerned about and of which they talk about the most. Thus, he has generated an instrument based upon the natural, expressive language of people as the means by which the traits to be measured are defined.

A series of regression equations have been developed by Gough which are based upon the original eighteen CPI scales. These equations are suggested to be able to predict leadership and social maturity versus delinquency and parole outcome. A major criticism of the CPI is that factor analysis does not support the fifteen working subscales as independent measures of personality. It appears that four factors are all that may be generally extracted from this instrument. The California Psychological Inventory is well-normed but apparently test-retest reliabilities are only moderate, ranging from .58 to .75 over a one year period. The major drawback to use of this instrument is the lack of clearcut definitions for these scales.

The Hand Test

The instruments reviewed so far have been predominantly paper-and-pencil self-reporting instruments or instruments completed as the result of personal interview. The instrument under discussion, the Hand Test, is an individual projective test. Individual projective tests are not frequently used in the assessment of potential juvenile delinquency for several reasons. Often such instruments generally do no report reliabilities or validities, and they generally fail to serve as instruments that are capable of producing valuable empirical data in response to research questions. A notable exception, however, appears to be a relatively new instrument, which may hold great promise. The Hand Test, developed by Waggonner in 1959, is aimed chiefly at adults, but may also be successfully used with children as young as six years of age. The test consists of ten cards, nine of which show hands drawn in various ambiguous positions and a tenth card which is blank. In addition to the standard cards, there now exists a group-administered form which has been designed for experimental use.

Waggonner's initial interest was the development of a projective technique to reveal aggression. It is his opinion that the hand represents a natural medium by which important tendencies toward hostility and aggressiveness can be reflected. Thus, he chose those items as the basis for this test. Attempts to indicate any validity criterion of the Hand Test have been based, so far, on the ability to discriminate between individual subjects. Data collected indicates the following results in the use of this particular instrument. Waggonner (1962) found that interpersonal, active, maladjustive, and withdrawal responses scored from the Hand Test successfully differentiated a population of 50 male schizophrenics from 50 college students. Use of the Hand Test was also the basis for the differentiation between 60 schizophrenics and 40 neurotics, using a matched-pair design with this test (Waggonner, 1962).

A further study using this instrument (Bricklin, Protrowski, & Waggonner, 1962) described and compared differences in number and percentage of responses, as well as other scoring categories, for groups of normals, neurotics, schizophrenics, prison inmates, organics, and epileptics. Findings, briefly, indicated the following. Normals had the highest responses, inmates the lowest; epileptic patients gave the greatest number and percentage of problematic responses. These findings with adults need replication with juvenile offenders but the findings are provocative.

Behavior Cards: A Test Interview for Delinquent Children.

Behavior Cards, developed by Stodgill (1949), are designed to provide a structured interview technique which would assist in distinguishing pre-delinquent and delinquent children. The administration of this instrument requires the subject to sort 150 items presented on individual cards. These particular cards describe specific behaviors. The child is instructed by the interviewer to place the card in a box labeled YES, if the behavior describes him, and into a box labeled NO if that behavior is not descriptive of the individual. This particular test differs from the usual paper and pencil instrument in that it requires categorical responses from the subjects. An additional asset of this particular instrument is the fact that it calls for a minimum reading level of fourth grade.

The standardization data of this particular instrument indicates the average reliability coefficients between items were reported to be .68 and .72 for two groups of male delinquents which included 50 subjects in each group. A similar study, which involved 50 female delinquents, yielded a coefficient of .52. Validation and normative data are on small samples; no data are available on its administration to non-delinquent male subjects. Nevertheless, information available to date indicates that this instrument is indeed worthy of further research and has potential clinical use where individual techniques are required.

Quay-Peterson Checklist of Problem Behaviors

Two questionnaires which appear to be reliable in distinguishing delinquent and non-delinquent populations are the De Scale (Peterson, Quay

& Anderson, 1959) and the Behavior Problem Checklist (Quay and Peterson, 1967). Responses to the test items on these scales have been intercorrelated and factor analyzed. Items were grouped into five factors which the authors assumed had power and which demonstrated no tendency to predict a particular type of delinquency. The initial factor was the psychopathic delinquency and the second neurotic delinquency. The third factor dealt with motivation and doing the "correct thing", labeled inadequate delinquency. Remaining factors were not concerned with traits or characteristics of the delinquent but were rather responsive to the child's socio-economic situation. The scales have adequate reliability but validity reports emphasize the importance of training observers to use behavior observation questionnaires. These scales may be most useful in category types of delinquent behavior rather than in prediction of deviant behavior.

The Ego Ideal and Conscience Development Test (EICDT)

Publisher: Monitor

Grade or age: ages 12-18

Administration time: 50-60 minutes

Cost:	$15.00 per 25 tests
	$ 1.25 per 25 answer sheets
	$ 2.50 per 25 profiles
	$ 2.00 per scoring stencil
	$ 2.00 per manual
	$ 5.00 per specimen set

Measures: 9 scores:

home and family

romance and psychosexual

inner development
community relations
rules and laws
school and education
economic sufficiency
self-actualization
total

The Ego Ideal and Conscience Development Test (EICDI), developed by Cassel (1969), has two forms and is a paper-and-pencil instrument. This particular test consists of nine subtests which are: (1) home and family, (2) inner development, (3) community relations, (4) rules and law, (5) school and education, (6) romance and psychosexual, (7) economic sufficiency, (8) self-actualization, and (9) a total score across other subtests. Unfortunately, this instrument makes little effort to validate the premise upon which it is constructed, namely, that the ego ideal and consequent conscience development in delinquents is markedly different from the development of such constructs in non-delinquents. Further, it assumes that discrimination between this particular development in delinquents and non-delinquents can be measured by this instrument. Although some evidence does exist that this device can distinguish delinquent and non-delinquent youths (Reise, 1969), reliability and validity studies are essential before it may be concluded that this instrument is assessing a phenomenon that does, in fact, exist.

The California Life Goals Evaluation Schedules

Publisher: Western Psychological Services

Grade or age: ages 15 and over

Administration time: 30-45 minutes

Cost:	$11.50 per examiners kit of 25 tests
	$ 6.50 per 25 tests
	$ 8.50 per 100 profiles
	$ 5.00 per manual

Measures: 10 scores:

esteem	security
profit	social service
fame	interesting experiences
power	self-expression
leadership	independence

The California Life Goals Evaluation Schedules are attitude scales which were developed to determine an individual's attitude toward desired future conditions. Developed by Hahn (1966), this particular instrument consists of ten schedules, or goals, which require response from "strongly agree" to "strongly disagree" on 150 highly debatable statements. Each schedule consists of only 15 items. The schedules themselves concern (1) esteem, (2) profit, (3) fame, (4) power, (5) leadership, (6) security, (7) social service, (8) interesting experiences, (9) self-expression, and (10) independence.

The validation studies of this particular instrument are currently in process. On college students, reliabilities range from .71 to .86, but there is obvious variance on the different schedules. At present, standardization is limited and the author indicates that it is yet tentative. The test itself is designed for individuals aged 15 years and older. Reading level would have to be revised downward if it is to be used as an assessment instrument in predicting delinquency. One difficulty with the utilization of this instrument is the determination of the age when life goals are consistent, if such is possible. If that age can be reasonably determined, then a set of schedules which offer insight into the achievement motivation of older adolescent delinquents may be of use. Hahn cites in the manual a study in a veteran's administration hospital in which the esteem, profit, fame, and power schedules were discriminators of male patients whose rate of return to society was quicker and more stable. They remained out of the hospital longer than those who scored poorly on the same four schedules.

The Hostility and Direction of Hostility Questionnaire (HDHQ)

Publisher: University of London Press, Ltd.

Grade or age: Mental patients and normals

Administration time: 15-20 minutes

Cost:
72½ p per 20 tests
20½ p per scoring stencil
47½ p per 20 clinical diagrams
22½ p per manual
50 p per specimen set

Measures: 4 scores:
- intropunitive
- extrapunitive
- total hostility
- direction of hostility

The Hostility and Direction of Hostility Questionnaire is an instrument developed in Britain by Caine, Foulds, and Hope (1967). The major assumption underlying the development of this particular instrument is the belief that aggression and severity of emotional disorder are highly related. Unfortunately, while this is an interesting suggestion, it is speculation. No research data exist at this time to substantiate the relationship between emotional disturbance and aggression.

The nature of this particular instrument is as follows: There are 50 items which were taken from the Minnesota Multiphasic Personality Inventory on the basis of their face validity to assess five selected subtests. The five determined subtests are: (1) hostile acting out, (2) criticism of others, (3) projected delusional hostility (paranoia), (4) self-criticism, and (5) guilt. The reliability of this 50 item test is predictably low. The first three subtests are assumed to measure extra punitive manifestations of hostility; the last two subtests are intended to measure intra-punitive hostility. The test correlates highly with the k-scale (paranoia) of the MMPI (.58 to .65)

Walker Problem Behavior Identification Checklist

Publisher: Western Psychological Services

Grade or age: Grades 4-6

Administration time: 2-5 minutes

Cost: $9.50 per 100 checklists and manual
$8.50 per 100 checklists
$2.50 per manual

Measures: 6 scores

acting out
withdrawal
distractability
disturbed peer relations

immaturity
total

A six-scale teacher rating device has been developed by Walker (1967) for use with children in grades four through six. This particular test, the Walker Problem Behavior Identification Checklist, consists of six subscales which are: (1) acting out, (2) withdrawal, (3) distractability, (4) disturbed peer relations, (5) immaturity, and (6) the total score. Unfortunately, validity and reliability data are exceedingly limited. Until more substantial data can be supplied on these particular scales or subscales, there must be extreme caution exercised in the use and interpretation of this particular instrument.

Washburne Social Adjustment Inventory

The Washburne Social Adjustment Inventory is an instrument developed to assess an individual's adjustment of childish emotional attitudes and immature motives. Developed by John Washburne (1940), this instrument is claimed to be able to reveal the extent to which an individual can make adaptation to his environment and is available in two forms. The nature of the picture edition is as follows: There are 60 test items which describe a situation and a reaction to that particular situation. The subject reports a description of his characteristic behaviors to the situations described by the test and the examiner attempts to rate the subject according to scales stipulated by the test manual. A self-reporting inventory is also available and consists of an eight-page booklet with an answer sheet for 122 items. Responses to these items are a dichotomous "yes" or "no".

Responses on this particular instrument are scores for the following categories: Truthfulness, Happiness, Alienation, Sympathy, Purpose, Impulse Judgment, and Control. This instrument has been used in determining maladjusted youths and normal youths, but to be effective instruments requires further empirical validation. The construction of these particular scales lends itself to a number of criticisms. For example, it is not clear whether happiness, alienation, sympathy, purpose, and the other concepts included in the test are to be considered traits or if there has been an attempt at experimental or empirical definitions of these particular concepts. It is not clear that these concepts are traits that by themselves do exist in nature. Therefore, it is not possible to assume that these concepts can be validly measured by a particular test item. Empirical validation of the existence of these concepts as particular personality traits is necessary before the test items and the particular subtest scores can be considered as legitimate indicators.

A Two-Step Process for Identifying Emotionally Handicapped Pupils

A practical method of identifying emotionally disturbed children from within a general school population is offered by Lambert and Bower (1961) in their Two-Step Process for Identifying Emotionally Handicapped Pupils. The two steps involved in the procedure are as follows: First, a screening procedures is undertaken to identify children having difficulty in school because of suspected emotional disabilities. Secondly, there is further identification of those children within this selected group whose emotional difficulties are sufficient to cause them extreme adjustment problems in school. The initial screening involves three types of measures, which are designed to gather information concerned with the child's interaction in the classroom. Specifically, these three measures involve: the teacher's perception of the pupil's behavior on a day-to-day basis, perception by the classmates of their fellow pupil's school behavior, the child's self-perception. Those students who score above a certain rank on any two of the three screening measures are indicated as likely to be handicapped emotionally and are thus referred for further diagnostic treatment. It has generally been found that this selected group included approximately 10% to 15% of the school population. Those specific instruments which were developed for these screening procedures include forms for the assessment of teacher ratings, peer ratings, and self ratings at primary, elementary, and secondary grade levels.

A distinct drawback to this particular instrument is the fact that it involves massive amounts of paper work. The validity of these particular screening processes has been subject to many different tests. According to Bower (1960), some nine out of the ten children who were identified through the screening procedures in this two-step process were found, on the basis of individual follow-up study, to have emotional problems ranging from moderate to severe. This instrument is also claimed to be sensitive in detecting moderate to serious emotional problems in children who are not readily identifiable and who thus have not been reported as requiring assistance to school psychology personnel. One can readily anticipate that a significant number of such students will be delinquent but no defined population incidence data is available.

Scale for Evaluating the School Behavior of Children, Ten to Fifteen

The Scale for Evaluating the School Behavior of Children, Ten to Fifteen (Hayes, 1943) was initially developed as a device to help teachers analyze objectively the behavior patterns of adolescents. The further intention of this instrument was assistance in determining basic adolescent maladjustment. There has been no attempt to validate this particular instrument. Items on this particular test were selected as a consequence of polled opinions of two groups of judges. The Scale for Evaluating the School Behavior of Children is limited in that it does, in fact, only evaluate the child's personality in relationship to school-type tasks. It does not attempt to ascertain a child's non-school behavior or maladjustment which may, in fact, have an origin in conflicts centered in situations which are not directly related to the school environment.

Vocational, Interest, and Aptitudinal Test

Included are brief reviews of useful vocational, interest, and aptitudinal tests. These reviews were excerpted from Buro's Seventh Mental Measurement Yearbook, 1972.

The Dailey Vocational Tests

Publisher: John T. Dailey and Kenneth B. Hoyt (manual), Houghton Mifflin Co.

Grade: 8-12 and adults

Administration Time: Test 1 - 75 minutes, Test 2 - 30 minutes, Test 3 - 40 minutes. Total Test - 145 minutes

Cost: $8.55 per 100

Measures: 1. Technical and Scholastic Test; 2. Spatial Visualization Test; and 3. Business English Test

The use of the DVT in evaluation of training programs is highly questionable since the desgin of the test is aimed at specific educational obejctives.

The norms provided are extensive and based on a respectable number of students at various age levels. The manual claims that concurrent validity is the best evidence of validity or "the relation of scores to current success in either training programs or in performance on the job," yet their data to support this does not conform to the visual types of statistical analysis. [1]The split-half reliabilities are generally high ranging from .84 to .96. The reliabilities are "consistently lower than would be needed for use of the subtest as separate scores with individual examinees. The publisher seems to expand the applicability of the test into areas for which it is not well suited. [2]Present data suggest that the test be used only with special groups, with considerable caution and with a full understanding of the limitations involved.

1. Baldwin, Thomas. The Seventh Mental Measurements Yearbook, Test and Reviews: Vocations, pg. 976 (1373-1374).
2. Shimberg, Benjamin. The Seventh Mental Measurements Yearbook, Tests and Reviews: Vocations, pg. 1373-1375.

Flanagan Industrial Tests

Publisher: Science Research Associates, Inc.

Grade: Adults entering business and industry

Administration Time: Form A series - 165 minutes, Form AA series - 70 minutes. Total Test - 235 minutes.

Cost: $3.15 per 25 tests, $1.50 per scoring stencil, $0.81 per manual, $4.00 per specimen set

Measures: Form A - arithmetic, assembly, components, coordination, electronics, expression, ingenuity, inspection, judgement and comprehension, mathematics and reasoning, mechanics, memory, patterns, planning, precision, scales, tables, vocabulary.

Form AA - assembly, components, electronics, ingenuity, inspection, memory, scales.

Personal History Index

Publisher: Industrial Relations Center, University of Chicago

Grade or Age: Job applicants

Administration Time: 10-20 minutes

Cost: $8.00 per 20 tests; $2.00 per specimen

Measures: 8 scores - school achievement, higher educational achievement, drive, leadership and group participation, financial responsibility, parental family adjustment, stability.

The PHI is an 87-item employment information questionnaire. The validity evidence for the scores is presented in the form of analyses of differences between occupational groups. The reliability scores are reported with the K-R 20's ranging from 143 to 176 with a median of .60. Norms are provided for ten populations.

(John K. Hemphill, op cit., 1385-1386)

Vocational Planning Inventory

Publisher: Science Research Associates, Inc.

Grade or Age: Vocational students in grades 8 thru 13 entrants

Administration Time: 200 minutes in 3 sessions, 160 minutes in 2 sessions. Total Test - 360 minutes.

Cost: $1.20 per student, rental and scoring service; $10.95 per 25 tests; $1.10 per student scoring service.

Measures: SRA Arithmetic Index, SRA Pictorial Reasoning Test, SRA Verbal Form, Survey of Interpersonal Values, Mechanics from FACT.

The tests cannot be locally scored. No information is presented on intercorrelations, means, variances, and multiple regression equations.

Typing Test

Publisher: J.H. Norman, Personnel Research Associates, Inc.

Grade or Age: Adults

Administration Time: 5 (15) minutes

Cost: $8.00 per 20 tests; $0.50 per key; $3.50 per specimen set; $2.50 per series manual.

Measures: Typing ability and overall rating.

The reliability coefficients on retest of same form and retest on alternate forms are .871 and .846 respectively. Three validity coefficients, ranging from .241 to .457 are provided in the manual but it is impossible to interpret their meaning as the criterion used was job performance rating. Greatest advantage of the test is its reusability.[1]

(Harrison, Mary T., op cite, 1397-1398)

California Occupational Preference Survey

Publisher: Educational and Industrial Testing Service

Grades or Age: grades 9-16 and adults

Administration Time: 30-40 minutes

Cost: $0.75 per manual; $2.25 per specimen set; $4.25 per 25 tests; $4.00 per 50 anser sheets; $3.50 per 50 profiles; $7.00 per set of scoring stencils. Reusable edition.

Measures: 14 scores - science professional, science skilled, technical professional, technical skilled, outdoor, business professional, business skilled, clerical, linguistic professional, linguistic skilled, aesthetic professional, aesthetic skilled, service professional, service skilled.

The COPS is designed to be equally useful with college bound students and those who are not; it is also not employing the forced-choice format.

Specific information on the norms groups is not to be found. Validity information is also scarce with no correlations between the COPS and existing interest inventories. The manual also fails to report reliability and stability data at the college level. Stability coefficients were low over a two year period .63 when obtained by high school students.
(Bodden, Jack L., op cite, 1403-1404)

Crowley Occupational Interests Blank

Publisher: Careers Research and Advisory Centre.

Grade or Age: age 13 or over of average ability or less

Administration Time: 20-30 minutes

Cost: Ł3.50 per 100 tests

Measures: 10 scores: five (5) interest areas - active-outdoor, office, social, practical, artistic. five (5) sources of job satisfaction - financial gain, stability-security, companionship, working conditions, interest.

The test has separate forms for boys and girls and no data is provided on reliability.

The Factorial Interest Blank

Publisher: NFER Publishing Co., Ltd.

Grade or Age: ages 11-16

Administration Time: 20-60 minutes

Cost: 65p per 25 tests, 50p per 25 answer sheets, 50p per 25 profiles, 20p per set of scoring stencils, Ł1 per manual

Measures: 8 scores - rural-practical, literate, sociable, humanitarian, entertainment, physical, aesthetic, scientific-mechanical.

The mean corrected split-half reliability coefficient was .78 for boys, .74 for girls. The mean test-retest reliability coefficient over a one month period is .90. There is no adequate proof of validity and the authors devote only four sentences and two tables to the matter. This attempt to measure interests seems to have been built on a foundation of methodological error!

(Campbell, David P., op cite, 1411)

Gordon Occupational Checklist

Publisher: Harcourt Brace Jovanovich

Grade or Age: high school students not planning to enter college

Administration Time: 20-25 minutes

Cost: $5.90 per 35 tests, $1.50 per specimen set

Measures: 5 or 11 scores - business, outdoor, arts, technology, service, 6 optional response summarization scores.

The absence of overdue research on the GOCL is discouraging. The use of the occupational area scores is limited by the lack of evidence on long term stability and predictive validity. Reliability data suggests that the inventory is reasonably stable over a period of one month. The inventory can be used to help students become familiar with occupations associated with activities in which they have expressed an interest. The best use of the check list is to direct student to DOT descriptions of occupations which they might enjoy.

(Westbrook, Bert W., op cite, 1413-1414)

Hackman-Gaither Vocational Interest Inventory: Standard Edition

Publisher: Psychological Service Center of Philadelphia

Grade or Age: grades 9-12 and adults

Administration Time: 25-30 minutes

Cost: $7.00 per 20 tests, $1.20 per 20 answer sheets, $1.20 per 20 profiles, $1.20 per 20 summary sheets, $1.20 per 20 comparison charts, $1.00 per manual, $1.25 per specimen set

Measures: 8 areas - business contact, artistic, scientific-technical, health and welfare, business-clerical, mechanical, service, outdoor.

The technical information reported in the manual appears to support the use of the instrument. Split-half reliabilities for separate scales range from 176 to 196 with 35 of the 40 coefficients about .85. Test-re-test reliabilitiesrange from .37 to .92. Content validity is supported on the grounds that the items are all directly related to the world of work. Face validity is defended because it is obvious to the respondent that he is finding out his vocational interests rather than having his privacy invaded by certain questions.

The inventory is self-administered and can be scored rather quickly by the respondent.

(Weitz, Henry., op cite, 1415)

Hall Occupational Orientation Inventory

Publisher: Follet Educational Corporation

Grade or Age: grades 9-16 and adults

Administration Time: 40-60 minutes

Cost: $10.50 per 20 tests, $3.20 per 20 hand-scored answer sheets, $9.90 per 100 IBM 1230 answer sheets, $3.00 per 20 profiles, $1.20 per manual.

Measures: 23 scales - creativity-independence, risk, information-understanding, belongingness, security, aspiration, esteem, self-actualization, personal satisfaction, data orientation, qualifications concern, extremism, routine-dependence, object orientation, people orientation, location concern, aptitude concern, monetary concern, physical abilties concern, environment concern, co-worker concern, time concern, defensiveness.

This is an inventory which purports to measure "on a level beyond that of superficial interests" and of the level of "psychological needs and value fulfillment, worker traits, and job characteristics." The answer format is free choice rather than forced choice. The use of the stanine is employed for the standard score. The reliability of the HOOI shows a median correlation of .84 over a three week period. Validity data is given in the form of discrimination between different age or sex group.

(Zytowski, Donald G., op cite, 1418-1419)

Kuder General Interest Survey

Publisher: Science Research Associates, Inc.

Grade or Age: grades 6-12

Administration Time: 45-60 minutes

Cost: a. $8.45 per 25 tests--self-scoring consumable edition. b. $16.30 per 25 tests--machine scoring edition. $0.75 and over per student scoring service.

Measures: 11 scores - outdoor, mechanical, computational, scientific, persuasive, artistic, literary, musical, social service, clerical, verification.

This inventory was devised mainly for junior high school students to survey their interests. The reading level is at the 6th grade level and occupational titles are avoided. The K-R reliabilities for all scales are above .70 and most of the scale intercorrelations are "close to zero." No interpretive scale descriptions whatever appear in the manual; which combine with the inherent complexities of the scores to make it seem probable that a considerable amount of students, parents, counselors and teachers will misinterpret the results.

Kuder Occupational Interest Survey

Publisher: Science Research Associates, Inc.

Grades or Age: grades 11-16 and adults

Administration Time: 30-40 minutes

Cost: $30.00 per 20 tests which includes scoring $2.50 per specimen set

Measures: surveys occupational interests.

The Kuder Occupational Interest Survey (form DD) is the elaboration of the Kuder Preference Record--Occupational (form D). The difference is that there is no general reference group used in developing the scales. Kuder did comparative studies with his test items and found that lambda scores greatly improved concurrent prediction over the differenciation method. Only concurrent validity studies are cited in the manual. The manual refers to two types of reliability. One type is test-retest, the other refers to the consistency of the differences between scores on selected pairs of scales for two administrations. The median reliability was .90. The correlation coefficients for the consistency in two administrations ranged from .84 to .92. The KOIS has been constructed with careful attention to rationale, construction, and scoring procedure.

(Walsh, W. Bruce, op cite, 1429-1430)

Minnesota Vocational Interest Inventory

Publisher: Psychological Corporation

Grade or Age: males over age 15 and not college bound

Administration Time: 45-50 minutes

Cost: $0.75 per manual, $1.00 per specimen set, $4.50 per 25 test-answer sheets, $0.85 to 0.50 for scoring service per test (NCS edition)

Measures: 30 scores - 21 occupational scales, 9 area scales, measures the vocational interest of non-professional men.

The validity of the inventory has not been determined on the subjects who are of the recommended age level of the inventory. The test-retest reliability coefficients are in the .70's and .80's and are based on a 30 day interval. No specific definition of what constitutes a high positive inter-item correlation is provided. Although the MVII has inadequacies in its standardization procedure and the reporting of reliability and validity it seems to merit some rank when used in a variety of settings for vocational counseling and classification purposes. There is an extensive array of interpretive suggestions found in the manual for use by a counselor.
(Meas, J. Ed., 3:337-41 w'66, Donald W. Hall, op cite, pg. 1436.)

Occupational Interest Survey (with pictures) Individual Placement Series

Publisher: Personnel Research Associates, Inc.

Grade or Age: industrial applicants and employees

Administration Time: untimed (15-20 minutes)

Cost: $28.00 per 20 tests, $4.00 per 100 answer sheets, $4.00 per 100 profiles, $2.50 per series manual, $4.05 per specimen set

Measures: 9 scores - scientific, social service, literary, agricultural, business, nechanical, musical, clerical, artistic.

This test is designed for group administration. There are 12 pages with 9 pictures on each page. The examinee chooses a picture that reflects his career choice. Scoring is simply a tally of the number of times pictures reflecting each occupational area were selected. Validity studies reflect a correlation of .93 between the occupations in which 23 people were employed and the occupational fields suggested from their scores. One should also turn to the face validity for evidence of congruence of the keys and occupations.

Test-retest reliability coefficients with a six month interval range from .85 to .93 for a group of 57 high school seniors.

Ohio Vocational Interest Survey

Publisher: Harcourt Brace Jovanovich, Inc.

Grade or Age: grade 8-12

Administration Time: 60-90 minutes

Cost: $9.50 per 35 tests, $4.00 per 35 answer sheets, $2.50 per manual, $1.75 per specimen set, $0.60 and over score service per test

Measures: 24 scores - manual work, machine work, personal services, caring for people or animals, clerical work, inspecting and testing, crafts and precise operations, customer services, nursing and related technical services, skilled personal services, music, entertainment, teaching-counseling social work, management and supervision, appraisal, agricultural, numerical, applied technology, promotion and communication, literary, artistic, training, sales representative, performing arts, medical.

The Ohio Vocational Interest Survey is a current, well standardized vocational interest inventory. One failure stated by the authors is the need for internal consistency scale reliabilities. The test-retest reliability is .80 based on 500 subjects. There is no validity data - no concurrent, predictive or criterion-related validity offered. With the current ambition of the authors of the OVIS the reliability and validity will soon be available to promote and extend the use of this inventory. (Frantz, Thomas T., op cite, 1441)

Phillips Occupational Preference Scale

Publisher: Australian Council for Educational Research

Grade or Age: ages 14 and over

Administration Time: 20-30 minutes

Cost: $4.50 per 10 tests, $0.45 per 10 profile answer sheets, $5.00 per set of scoring stencils, $1.25 per manual, $7.20 per specimen set

Measures: 10 scores - clerical, computational, practical, scientific, mechanical (males), mechanical (females), persuasive, social service, literary, artistic, outdoors.

RBH Job Choice Inventory

Publisher: Richardson, Bellows, Henry & Co., Inc.

Grade or Age: male job applicants and employees in oil and chemical industries

Administration Time: 25-30 minutes

Cost: $4.00 per 25 tests, $1.50 per set of keys, $1.50 per manual, $2.50 per specimen set

Measures: 5 scores - general mechanical, electrical and precision, construction and handiwork, process and laboratory, vehicle operation.

The inventory is a forced choice variety that supposedly provides measures of interest in 5 areas. The norm group was extremely small and limited in range, which gives the appearance of floating N's. Evidence of the validity is limited to two concurrent studies of the correlations of the five scores with a performance criterion - supposedly an overall work evaluation. The coefficients ranged from -.20 to .26. These correlations do not offer adequate validity evidence.

Rating Scales of Vocational Values, Vocational Interests, and Vocational Aptitudes

Publisher: Educational and Industrial Testing Service

Grade or Age: grades 8-16 and adults

Administration Time: 45-50 minutes

Cost: $3.50 per 25 tests, $3.00 per 25 profile sheets, $0.50 per manual, $2.25 per specimen set, $0.45 or less per test scoring service.

Measures: 3 scales for obtaining self-ratings of aptitudes, interests, and values with regard to various vocational activities.

The manual does not report on the reliability or stability of the scores and many of the scales yield a negatively skewed distribution. The norms are based on high school and college students (645) and no other information is provided on the norms. Validity information is reported on only 183 college students. The best that can be said, considering that no validity data on high school students is given, is that the validity of the inventory is unknown.

Strong Vocational Interest Blank for Men

Publisher: Stanford University Press

Grade or Age: ages 16 and over

Administration Time: 30-60 minutes

Cost: $6.00 per 25 tests, $1.75 per 25 hand-scored answer sheets, $100.00 per set of hand-scoring stencils, $10.00 per set of 59 item weight tables, $1.50 per 25 profiles, $3.00 per manual, $1.75 per supplement, $6.00 per specimen set.

Measures: 84 scoring scales - 22 basic interests, 54 occupational, 8 non-occupational, 6 administrative indices.

This is a paper-and-pencil inventory of interests applicable to late adolescents and adults. The inventory has been revised to bring it to date with new occupations. Although the items have good face validity no empirical evidence is presented in the manual or supplement, one must go to the Handbook. The test-retest data is given here along with concurrent and predictive validity.

The reliability data is presented both over time and for internal consistency. The occupational scales have a median odd-even reliability of .80 and a test-retest reliability of .90 over 30 days.

Strong Vocational Interest Blank for Women

Publisher: Stanford University Press

Grade or Age: ages 16 and over

Administration Time: 30-60 minutes

Cost: $6.00 per 25 tests, $3.00 per manual, $1.75 per supplement, $6.00 per specimen set.

Measures: 81 scoring scales - 19 basic interests, 58 occupational, 4 non-occupational, 6 administrative indices.

This is the 1969 revision of the 1946 test. The basic interest scales have been constructed by grouping highly intercorrelated items to provide content areas. They are well standardized on a large population with a wide range of occupations. These scales are internally consistent and the test-retest correlations are 189 over a short period of time and 165 over a long period of time. The median correlation coefficients are .68. The predictive validity of the inventory is discussed only briefly.

Vocational Agriculture Interest Inventory

Publisher: Interstate Printers and Publishers, Inc.

Grade or Age: boys grade 8

Administration Time: 20-30 minutes

Cost: $1.25 per 20 tests, $0.75 per 20 answer sheets, $0.10 per set of scoring stencils, $0.25 per manual, $1.00 per specimen set.

Measures: agricultural interest.

Vocational Interest and Sophistication Assessment

Publisher: Parnicky, J.J.; Kahn, Harris; and Burdett, Arthur.

Grade or Age: retarded adolescents and young adults

Administration Time: 20-40 minutes

Cost: $2.00 per 50 inquiry sheets, $1.00 per 25 response sheets, $1.00 per 25 profiles, $2.00 per manual, $7.00 per specimen set

Measures: 2 forms - male and female. Male - interest and knowledge in--garage, laundry, food service, maintainance, farm grounds, materials handling, industry. Female - interest and knowledge in--business and clerical, housekeeping, food service, laundry and sewing.

Work Values Inventory

Publisher: Houghton Mifflin Co.

Grade or Age: grades 7-16 and adults

Administration Time: 10-20 minutes

Cost: $15.00 per 100 tests, $0.90 per specimen set, $0.36 scoring service per test.

Measures: 15 scales - altruism, esthetics, creativity, intellectual, stimulation, independence, achievement, management, security, prestige, economic returns, surroundings, supervisory relations, associates, variety, way of life.

The inventory seems to have no pragmatic validity or in other terms, no practical usefulness. The manual is deficient in terms of reliability information and in terms of comprehensiveness of the norms. Reliability is reported for 51 males and 48 females in 10th grade. The test-retest reliabilities over a two week period range from 174 to 188. The means for the group presented was not representative of the norm group.

Bennett Mechanical Comprehension Test

Publisher: Psychological Corporation

Grade or Age: grades 9-12 and adults

Administration Time: 30-35 minutes

Cost: $6.50 per 25 tests, $3.50 per 50 answer sheets, $0.50 per key,

$7.50 per 3-3/4 ips tape recording, $0.50 per manual,
$1.00 per specimen set.

Measures: mechanical comprehension

This test was designed to "measure the ability to perceive and understand the relationship of physical forces and mechanical elements in practical situations." Reliability is the internal consistency notion estimated by means of odd-even coefficients and the Spearman-Brown formula. They range from .81 to .93 with a median of .86. Evidence of test-retest reliability is restricted to a short interval practice effect study. The standard error of measurement tends to be approximately 3.5 points. The validity quotients reported range from .12 to .52 with median of .24. It would be advisable, aside from the high rating of this test, to use it with a battery of other tests.

Minnesota Importance Questionnaire

Publisher: Vocational Psychology Research

Grade or Age: Vocational Counselors

Administration Time: 30-40 minutes

Cost: $3.00 per 10 tests, $5.00 per 100 answer sheets, free specimen set.

Measures: vocational needs; 21 scores - ability utilization, achievement, activity, advancement, authority, company practices and policies, compensation, co-workers, creativity, working conditions, independence, moral values, recognition, responsibility, security, social service, social status, supervision-human relations, supervision-technical, variety.

Minnesota Satisfaction Questionnaire

Publisher: Vocational Psychology Research

Grade or Age: Business and Industry

Administration Time: 15-20 minutes (long form); 5 minutes (short form)

Cost: $5.00 per 25 test (long form), $2.50 per 25 tests (short form)

Measures: work satisfaction

The MSQ has been developed as a measure of satisfaction with a number of different aspects of the work environment and is potentially useful for evaluating vocational rehabilitation outcomes. The items are easy to read (5th grade level) and there is evidence of acceptable reliability - .80. Stability of the questionnaire was established by test-retest. Regarding validity, the evidence is mainly in the form of construct validity.

Electrical Sophistication Test

Publisher: Psychometric Affiliates

Grade of Age: job applicants

Administration Time: 5-10 minutes

Cost: $2.50 per 25 tests, $1.00 per specimen set

Measures: elctrical skills

This is a multiple choice, 14 item test which must be hand scored. A 74 test-retest relaibility coefficient was obtained on a sample of 238 college men with a seven week interval. The only effort toward validation is to point out that the difference between scores of random job applicants and people in jobs presupposedly electrical knowledge is highly significant.

Mechanical Handyman Test

Publisher: Public Personnel Association

Grade or Age: maintenance workers

Administration Time: 120-130 minutes

Cost: $1.00 per test, $2.00 per specimen set

Measures: mechanical ability

Ohio Auto Body Achievement Test

Publisher: Instructional Materials Laboratory, Ohio State University

Grade or Age: grades 11-12

Administration Time: 120 minutes

Cost: -----

Measures: 16 scores - welding, metal forming, body filler, refinishing, trim and hardware, parts replacement, alignment, glass replacement, fiber glass repair, frame and unit body, electrical system, cooling and conditioning, shop management, applied science, applied math, total

Ohio Basic Electricity and Electronic Achievement Test

Publisher: Instructional Materials Laboratory, Ohio State University

Grade of Age: grades 11-12

Administration Time: 190 minutes

Cost: -----

Measures: measures knowledge of elcetricity and elctronics

Purdue Test for Electronians

Publisher: Science Research Associate, Inc.

Grade of Age: industry and vocational schools

Administration Time: 25-30 minutes

Cost: $6.50 per 25 tests, $0.45 per manual, $1.08 per specimen set

Measures: knowledge of electricity and electrical operations

This is a 65 item objective test. Parallel-form reliability is an adequate .91, which rises to .96 when both forms are administered in succession. Two norms were developed on 434 students and 131. Validity rests largely on the thoroughness of the sampling. Due to a lack of recent normative data, validation studies, or any efforts to update the test it is at questionable value.

Short Occupational Knowledge Test for Adult Mechanics

Publisher: Science Research Associates, Inc.

Grade or Age: job applicants

Administration Time: 10-15 minutes

Cost: $5.30 per 25 tests, $0.75 per manual, $3.30 per specimen set

Measures: a knowledge of auto mechanics

The purpose of the test is to assist in differentiating between knowledgeable applicants and those with limited knowledge of the occupation. K-R 20 reliabilities of .81 and .88 and alternate forms reliabilities of .87 and .93 appear to assure adequate test reliability. The content validity appears to be adequate as a result of the method of question selection. One should have a reasonable degree of confidence in the value of the test.

Short Occupational Knowledge Test for Carpenters

Publisher: Science Research Associates

Grade or Age: job applicants

Administration Time: 10-15 minutes

Cost: $5.30 per 25 tests, $0.75 per manual, $3.30 per specimen set

Measures: competence in carpentry

Short Occupational Knowledge for Draftsmen

Publishers: Science Research Associates, Inc.

Grade or Age: job applicants

Administration Time: 10-15 minutes

Cost: $5.30 per 25 tests, $0.75 per manual, $3.30 per specimen set

Measures: knowledge of draftsmen occupation

Short Occupational Knowledge Test for Electricians

Publisher: Science Research Associates, Inc.

Grade or Age: job applicants

Administration Time: 10-15 minutes

Cost: $5.30 per 25 tests, $0.75 per manual, $3.30 per specimen set

Measures: knowledge and skills of electricians

This is an 18 item, multiple choice, job related test. The test is easily administered and scored Reliability based on K-R 20 is .75. Correlations between forms of .85 and .83 are reported for two groups. Concurrent validity was ascertained by administering the test to a sample of a control group and specialists to determine the percentage correctly identified in each group. Four additional tests which can be ordered are:

1. Short Occupational Knowledge Test for Mechanics
2. Short Occupational Knowledge Test for Plumbers
3. Short Occupational Knowledge Test for Tool or Die Makers
4. Short Occupational Knowledge Test for Welders

Differential Aptitude Test

Publisher: Psychological Corporation

Grade or Age: grades 8-12 and adults

Administration Time: 180-235 minutes

Cost: $17.60 per 25 copies of the battery, $10.00 per 50 MRC answer sheets, $1.75 per casebook, $2.50 per manual, $3.00 per specimen set

Measures: Booklet 1 - verbal reasoning, numerical ability, total, abstract reasoning, clerical speed and accuracy.

Booklet 2 - mechanical reasoning, space relations, spelling, grammar.

The norms are based on a sample of 50,510 boys and girls representing a cross-section of the U.S. public school population in grades 8 through 12. Separate norms are presented for boys and girls which are available in raw scores, centices and stanines. The reliability coefficients are split-half correlations. The coefficients attest to the high degree of short-term consistency. The percents of accountable reliable variance range between 84 and 94 which prove these tests to be of value for counseling in grades 8-12.

Flanagan Aptitude Classification Tests

Publisher: Science Research Associates, Inc.

Grade or Age: grades 9-12 and adults

Administration Time: 258-388 minutes in 2 sessions

Cost: $5.10 per 25 self-marking test, $0.40 per technical supplement, $0.55 per manual, $0.80 per personnel director's booklet, $6.10 per specimen set.

Measures: 16 scores - inspection, coding, memory, precision, assembly, scales, coordination, judgement and comprehension, arithmetic, patterns, components, tables, mechanics, expression, reasoning, ingenuity.

The reliability estimates for individual tests falls short of that necessary for individual prediction. Correlation coefficients for occupational stanines with criteria of progress and performance in college fields are relatively good. The validity coefficients are also extremely low for most occupational stanines ranging from +.10 to -.17. Validity is just not as high as would be expected from a battery of this length. If Flanagan continues his validation studies this will be a well-designed battery of tests and will be of value in vocational counseling.

Nonreading Aptitude Test Battery

Publisher: United States Training and Employment Service; orders for tests materials must be cleared through a State Employment Service Office. Distributed by the U.S. Government Printing Office.

Grade or Age: Disadvantaged grades 9-12 and adults

Administration Time: 190 minutes

Cost: $1.85 per set of 8 test (a-h), $1.50 per 100 record blanks, $3.75 per 100 profile record cards, $4.00 per set of NCS scoring stencils, $1.00 per manual, $1.85 per examinee scoring service

Measures: 9 scores - intelligence, verbal, numerical, spacial, form perception, clerical perception, motor coordination, finger dexterity, manual dexterity.

Postscript

Tests constitute a structured means of observing selected behavior. Their use permits us to compare the performance of one person to that of others on that same task. Therefore, it behooves the user of academic achievement, vocational aptitude and interest, and personality tests, to realize that these measures are highly contaminated by culture, previous experience, and the presence or absence of social, academic, and work related success. These tests are not culturally fair, they are culturally loaded. An urban youth may never have seen the blueprints associated with model and plane construction, or putting a new lawn mower together, being completely overwhelmed by the spatial relations scale on the General Aptitude Test Battery.

This chapter has dealt solely with examining the use of tests, not the interpretation of tests. In the next chapter we shall discuss the interpretation made of test results, or how information from formal appraisal can be augmented and utilized meaningfully. Therefore, it may be valuable to walk through the process one more time.

The goal of vocational assessment is to establish a career educational plan. That means the youth must be viewed in relationship to his social, vocational, academic, and personality function. A treatment program integrating these four areas must be developed drawing on all the services and programs available to him. Career education is not vocational education. It is the construction of a comprehensive management plan that collapses across many disciplines to achieve goals, specified as target behaviors designed to accomplish a state of vocational preparedness. The counselor must decide if the reading level of the youth is satisfactory to enter clerical training, or if remedial reading is in order. Whether the erratic behavior of a 16-year-old brain damaged youth can be shaped and the catastrophic reactions reduced through a counseling relationship. If not, what are the other treatment alternatives. Could it be that the youth should receive vocational guidance suggesting removal from any close relationship, even assembly line types of employment to very isolated work relationships.

Test data is useful but it never details a plan of action. The counselor does that. Test data informs the counselor of the academic achievement level, it doesn't advise remediation or specify the type of remediation. Vocational interests seem to change rapidly with adolescents. Maybe that is why interest inventories are generally not reliable over one month. Aptitude tests describe strengths and weaknesses in performance, comparing a youth to others his age on a specific function. They do not relate the amount he can learn, strengths that specific aptitude, in a given period of time. Personality tests describe feelings in general, they do not predict reactions to specific job training or work experience stress, nor do they control for the next guy down in the assembly line.

To work without test data is to operate without an x-ray. One has no substantiation of any working hypothesis. A very dangerous dimension. Test data used to answer specific questions concerning the performance being measured leads to wise behavioral management. Test data used as a sole criteria to make decisions for this or that training is an unsound career educational development planning practice. Use test data, but use it carefully and as added information to support or refute a question being raised concerning some aspect of a youth career development program.

Establishing a Meaningful Career Education Plan

Sandra Alper and David A. Sabatino
Northern Illinois University

Running Head: Career Education Information Center

Chapter III

Establishing a Meaningful Career Education Plan

Sandra Apler and David A. Sabatino

In Chapter II the discussion centered around the use of observations, structured interviews and formal test results in developing career education program goals for youth. The intent of this chapter is to further delineate the career planning process. Three informal task-oriented counseling and assessment situations will be discussed. These are the career information center, job stations, and work stations. The goals are to 1) stimulate interest for career planning by exposing the youth to the world of work in an organized, systematic manner, 2) obtain additional career planning information by bringing the youth into contact with specific information under various job titles, 3) determine specific career interests, strengths, and weaknesses through exposure to job stations and work stations under structured learning conditions. The rationale for this three-phase process is that the youth will be aided in decision-making concerning his future career plans when he understands the demands of various types of work, attempts to test his aptitudes in job simulation stations, and tries out various jobs in a protected training environment.

A student's experiences in career information centers, job stations, and work must be carefully planned and coordinated. If a youth spends time in a career information center, that time must be directed by his current vocational thoughts and plans. The job titles he is interested in should be pursued in determining how well he is suited for work that at first glance "looks good" in the books in the career information center. It is not wise to have a youth attempt every task at a job station. He should choose those that reflect aptitudes he is unsure of at that point in time. Finally, work stations should not be used as merely a means for a youth to earn money, to get out of school, or to assist someone because they need extra manpower. A work station is a situation structured to provide coordinator, work station supervisor, and the youth useful information for career decisions. The youth's performance should feed back as much information as possible on his abilities and attitudes.

I: Career Information Centers

A career information center is a library of written, recorded, and graphically displayed materials concerning jobs. The extant holdings should be easy to use; whenever possible, they should be presented with A-V aids. They should not require a high level of reading skills, which could cause a potential problem for some nonreading youth. The physical dimensions of the room are not critical. They should promote a feeling of informal use, and materials should be displayed to permit browsing. Even more important, however, is to have some type of teacher coordinator available to provide technical assistance. That person need not be a trained librarian. In fact, a youth on work station assignment could handle the advising role for other students in the center, if a professional librarian were nearby to assist. A secretary or paraprofessional could handle this task with ease. It is important that the person be sensitive to the students who may be clumsy in their initial explorations of work information.

The mission of the career information center is to stimulate curiosity about various jobs. Therefore, the entire atmosphere of the center should provide the youth with an impetus for thinking about the following:

1) the vast number of jobs

2) different characteristics of different jobs

3) what it is he likes and doesn't like about a given job

4) why he has selected a given vocation

5) through vocational exploration to determine how realistic the pursuit of a given career is for a given youth.

Vast Numbers of Jobs and Job Types

There are a vast number of jobs available. One of the first principles in developing a realistic career education plan is to select those jobs which are meaningful. One procedure is to assist the youth in using the *Dictionary of Occupational Titles* which is used by the Employment Service and is presented in the two volumes containing 21, 750 different jobs. It is overwhelming to any adult to search the pages of the *Dictionary of Occupational Titles, DOT* and note the number of different job titles; therefore, youths must be introduced to the *DOT* and given the opportunity to explore it with assistance until they uncover job titles of interest. The *DOT* utilizes the three major determinants of *Data*, *People*, and *Things* as the variables that must be considered when determining if a job could be suitable. Data is any information about the job. People is the self demur required as well as reuqirements of interpersonal relationships, and Things are the materials, tools, and characteristics of the job. The codes and definition for use of the DOT are found on page 649, Appendix A. We will briefly describe each variable selected in the DOT classification guide.

Data:

0 Synthesizing: Integrating analyses of data to discover facts.

1 Coordinating: Determining time, place, and sequence of operations or action.

2 Analyzing: Evaluating data and presenting alternative actions.

3 Compiling: Gathering, collating, or classifying information.

4 Computing: Performing arithmetic operations. does not include counting.

5 Copying: Transcribing, entering, or posting.

6 Comparing: Judging the readily observable functional, structural, or compositional characteristics.

People:

0 Mentoring: Dealing with individuals in terms of their total personality in order to advise, counsel, and/or guide them or other professional principles.

1 Negotiating: Exchanging ideas, information, and opinions with others to formulate policies and programs.

2 Instructing: Teaching subject matter to others, or training

others (including animals).

3 Supervising: Determining or interpreting work procedures for a group of workers.

4 Diverting: Amusing others.

5 Persuading: Influencing others in favor of a product, service, or point of view.

6 Speaking-Signaling: Talking with and/or signaling people to convey or exchange information.

7 Serving: Attending to the needs or requests of people or animals.

Things:

0 Setting Up: Adjusting machines or equipment by replacing or altering tools, jogs, fixtures, and attachments to prepare them to perform their functions.

1 Precision Working: Using body members and/or tools or work aids to work, move, guide, or place objects or materials in situations where ultimate responsibility for the attainment of standards occurs and selection of appropriate tools, objects, or materials, and the adjustment of the tool to the task require exercise of considerable judgment.

2 Operating-Controlling: Starting, stopping, controlling, and adjusting the progress of machines or equipment designed to fabricate and/or process objects or materials. Operating machines involves setting up the machine or material as the work progresses.

3 Driving-Operating: Starting, stopping, and controlling the

actions of machines or equipment for which a course must be steered, or which must be guided, in order to fabricate, process, and/or move things or people.

4 **Manipulating:** Involves some latitude for judgment with regard to precision attained and selecting appropriate tool, object, or material, although this is readily manifest.

5 Tending: Involves adjusting materials or controls of the machine, such as changing guides, adjusting timers and temperature gages, turning valves to allow flow of materials, and flipping switches in response to lights. Little judgment is involved in making these adjustments.

6 Feeding-Offbearing: Inserting, throwing, dumping, or placing materials in or removing them from machines or equipment which are automatic or tended or operated by other workers.

7 Handling: Using body members, handtools, and/or special devices to work, move, or carry objects or materials. Involves little or no latitude for judgment with regard to attainment of standards or in selecting appropriate tool, object, or material. (pp. 649-650)

Specific Job Information

Following the initial exploration of occupational titles in the DOT, the task becomes one of identifying more in depth information concerning the makeup of a job. Two lists have been included in this chapter. One is a source of additional information that can supply need materials on specific jobs to a career information center.

The second is a listing of materials which can be added that focus on job groupings across job classifications.

How to Use a Career Education Center

1. The career education center should be introduced by the youth's counselor or teacher. The youth himself should also be introduced to the secretary or librarian managing the center.

2. The youth should be encouraged to browse freely.

3. The youth should be provided directed searches if he is not interested in just browsing.

(see Appendix for additional resources for career information centers).

II. Job Stations

The difference between the formal assessment described in the first part of Chapter II and the types of assessment programs described as job stations and work stations is the continuous nature of the latter two forms of task analysis. Job stations and work stations are not one shot assessment approaches. The coordinator should not merely administer a test and interpret the results. A coordinator should continue to observe and dialogue with students through the process of continued job station assessment, or in the case of work station, during actual work performance. A job station is a means of providing the student with simulated work tasks under controlled conditions in the classroom. The purpose is to assess the vocational, academic, and social skill development, identifying those areas that need further refinement through the integrated curriculum.

It should be emphasized that this assessment process serves as an on-going part of the career education process. That is not to say that the assessment cannot take place at a given time interval, for a specified amount of time, as it can. Career planning and career assessment does not mean vocational assessment, or vocational planning alone, but rather all the factors that contribute to vocational preparedness. Simply put, a youth can't be taught vocational preparation with any degree of success by teaching the components in an isolated one-shot manner.

Educational rehabilitation and correctional workers must coordinate and integrate the development and assessment of vocational skills and interest. Brolin (1973) has listed 10 factors that must be included in the career education planning and evaluation process in order to meet this goal.

1) Does the system take into account expectancy to fail?
2) Does the system take into account academic limitations?
3) Does the system take into account verbal limitations?
4) Does the system take into account limited experience?
5) Does the system allow for more than one trial on tasks?
6) Does the system allow for repeated instruction and check for comprehension?
7) Does the system have face validity?
8) Does the system allow for appropriate conditions for testing i.e., rapport, pleasant surrounding, orderly administration, consideration of fatigue?
9) Does the system use "spaced" rather than "masses" evaluation?
10) Is the system adequately normed on the type of workers who are using it and have follow-up studies being conducted

to determine its

Brolin (1973) has pointed out ten additional advantages of vocational assessment:

1) The student really starts thinking about jobs once he begins taking the vocational assessment battery. Sometimes, talking about jobs stimulates little interest in people and it isn't until they are confronted with an actual or simulated job to do that they really begin thinking seriously about their future and what they would like to do. 2) Job exploration can be initiated by conducting and administering vocational assessments. The student has the opportunity to try out a number of different types of work tasks that are related to a variety of job families, which can prompt the student to do further reading on specific jobs related to specific interests. 3) Actual simulations of real jobs can be brought into the classroom, rehabilitation facility, or institutional setting and tried out without any pressure. Many of our clients have a problem in the area of pressure, and in a more relaxed and non-threatening atmosphere, they can try the various tasks without any undue pressure. 4) Utilizing a vocational assessment system can be a meaningful deviation from the more traditional verbal activities of the classroom. Many handicapped people, particularly the retarded and disadvantaged are more likely to enjoy and to be successful in more manipulative tasks and activities than the verbal ones that they encounter in a classroom situation.

5) A vocational assessment system can act as a motivator to learn more academic material so they will qualify for specific jobs they are interested in. Too many times, former students regret not learning certain academic material while they were in school because such deficiency is now precluding any chances for the kind of work they would really like to do. 6) The vocational assessment system allows a method of comparing student abilities with those on actual jobs. Many times the teacher, evaluator, or vocational instructor are surprised how well a client is able to perform certain tasks/jobs that people are actually doing. 7) Vocational assessment measures can be used as behavioral change instruments. For example, work habits, interpersonal relationships, cooperation, and other behaviors that are required to satisfactorily perform different jobs may change when one is engaged in vocational assessment activities requiring these behaviors. 8) As an indicator of specific vocational strengths and weaknesses, the school will be able to develop such strengths and work on such weaknesses while the student is still there rather than finding out these problems near the end or after the program. This again can make the school program more meaningful and individualized for each particular student. 9) Vocational assessment brings reality into the classroom and gives the student a reason for learning materials. He is able to see when confronted with actual vocational tasks why he has to be able to read, write, compute, be aware of his surroundings, and appropriately relate to other individuals. 10) Vocational assessment tasks can be a builder of self-confidence

and a different technique of learning. As mentioned earlier, the more verbal and abstract classroom material is, very often the more frustrating and self-debilitating it is to many handicapped individuals. Perceptual-motor activities may often be much more appropriate. In fact, there is evidence that the skills required in school are different from those needed for satisfactory community adjustment, i.e., the same skills needed for academic success are not directly related to community success.

Career education must assist the student in determining information about himself. That information is gained primarily from academic work and work experience. All career education assessments should provide 1) vocationally relevant information concerning those interests or aptitudes previously unexplored, 2) a set of work, human relationship, and personal development experiences in a protective, goal-oriented atmosphere, and 3) experience which will allow direct application of personal, social, academic, and vocational skills.

The job station is a work sampling procedure that has five main goals:

1) Through observation of student performance and behavior on a series of standardized work samples a trained vocational evaluator can assess vocationally relevant variables including skills, interests, attitudes, and physical capacities.

2) By establishing a core set of work samples, representative of a wide range of occupational areas and job requirements, the evaluator can expose students to a comparable set of vocationally relevant experiences.

3) Work samples provide a direct, hands-on experience for the student during which he can experience and feel what it is like to perform specific work tasks and to acquire information about his reactions to performing these tasks.

4) By providing the student with the opportunity to choose those work samples he would like to perform, the vocational evaluator provides a situation in which the consequences of a vocational choice become immediately known to the student.

5) By providing the student with an opportunity to indicate his reactions to his performance and behavior on work samples and following this up with a statement of performance and behavior as seen by the evaluator, and student, a learning situation for developing self evaluation abilities is established.

The potential value of using work samples in job stations is to develop standardized methods of reporting behavior in a situation that is commensurate with a real job. At the present time, however, more evidence is needed that differential performance on work samples is related to differential performance on the actual job. Several job station approaches are described below.

The Singer Graflex System consists of ten job stations outfitted with a variety of industrial tools. The ten stations are:

1. Basic tools
2. Bench assembly
3. Drafting
4. Electrical wiring

5. Plumbing and pipe fitting
6. Carpentry and woodworking
7. Refrigeration, heating and air conditioning
8. Soldering and welding
9. Office and sales clerks
10. Needle trades

An evaluator manual and evaluation forms are included which cover the procedures for using the system. In addition, an instructional filmstrip with sound cartridge accompanies each job station.

Each job station (36" w x 36" d x 19" h) is self-contained and is designed either to be self-standing (it has extension legs) or to sit on a desk top. For security and storage, each work station can be completely enclosed and locked through the use of sliding panels inserted along rails bordering the exposed top and front of the work station.

Each job station is outfitted with tools appropriate to the work station function. In addition, an initial supply of consumable materials used in the work tasks is provided. The job station also has a Graflex Auto-Vance Study Mate rear screen sound/filmstrip projector mounted on the rear panel along with a remote control box for trainee operation.

The job station can be moved to different locations. Therefore, arrangement of the portable job stations is flexible and a variety of physical set ups can be accommodated.

The manual describes the background and purpose; the system and its components; and gives directions for utilizing the Graflex Vocational Evaluation System. Appropriate evaluation forms are provided in the manual. In addition, an initial supply of forms are provided by Graflex as part of the system.

The manual also takes the evaluator through the program step-by-step, giving the suggested sequence of events and information on how to achieve most effective use of the system.

Basically, the process involves:

1. Orientation to the program
2. Job station I
   a. Audiovisual AV Presentation of:
      1. How to operate machine
      2. Jobs related to that job station
   b. Trainee rates interest based on AV description
   c. Work station tasks directed by AV presentation
   d. Trainee rates interest based on work experience
   e. Trainee rates own performance of tasks
   f. Evaluator rates trainee performance
3. Repeat for other job stations
4. Trainee rates interest by pictures of jobs
5. Evaluator tabulates total interest
6. Evaluator brings together all available data to rate interest and performance and makes recommendations.

The manual also contains inventory control lists of tools and materials supplied as part of the Graflex Vocational Evaluation system. Each item is described and its quantity specified. Each station has its own filmstrip and tape cartridge for use by the trainee.

These are placed in the Graflex Auto-Vance Study Mate mounted on the back of the job station. The trainee controls the presentation via a remote control switch mounted on the right-front part of the job station. Trainee control is necessary for self-pacing.

Problems presented by diverse reading levels are avoided. The programmed instructions allow the system to be used by non-reading or poor reading participants with a minimum of evaluator assistance.

The audiovisual presentation:

1. Introduces the trainee to the tools of that job station and tells him how to use them.

2. Describes a series of actual jobs related to the activities he will carry out at that station.

3. Instructs the student step-by-step through the job station tasks which have been designed to replicate facets of jobs as found in an industrial setting.

The Graflex Vocational Evaluation program is oriented to self-study. There are no rigid time limits. Usually, however, the screening program can be completed in seven days. Both the trainee and evaluator participate in the assessment. Trainee evaluation of his own interests and aptitudes is combined with the instructor's assessment to form a definitive picture of job training direction most suitable for each client.

The program engages the trainee in goal-directed work following a brief orientation. The evaluator observes the trainee's behavior in a variety of work tasks developed from descriptions found in the Dictionary of Occupational Titles. The unique feature of the system is the occupational exploration segment which helps the trainee determine interests by describing through audiovisual techniques a number of actual jobs related to the stations.

The Graflex Vocational Evaluation System is a direct result of Graflex' experience in training disadvantaged clients in a variety of programs, including:

Job Corps Centers
Vocational Rehabilitation Training Centers
Correctional Programs
NABS/JOBS Programs

The Graflex Training Division offers a full line of services, curriculum materials, equipment, and management expertise for manpower development programs.

A price-purchase breakdown is shown below:

System Pricing

the Singer Vocational Evaluation System

Product #	Item	Price Range
--	The Singer vocational system--Complete with evaluators' package, and any ten (10) work-stations, selected from the list	From $8,666.00 To $10,344.00

--	Installation/orientation 2-day program (conducted by Singer/Graflex personnel)	$200.00-$200.00
--	Shipping charges from Morton Grove, Illinois to destination (estimated and invoiced)	XXX.XX—XXX.XX
--	Total price (plus shipping):	From $8,866.00 To $10,544.00

*Price (per Unit) for Supplemental and Adjunctive Work Stations

52-101	1.	Basic tools	$ 872.00

*Price (Per Unit) for Supplemental and Adunctive Work Stations

52-101	1.	Basic tools	$ 872.00
52-102	2.	Bench Assembly	1,112.00
52-103	3.	Drafting	849.00
52-104	4.	Electrical wiring	805.00
52-105	5.	Plumbing and pipe fitting	947.00
52-106	6.	Carpentry and woodworking	916.00
52-107	7.	Refrigeration, heating and air conditioning	791.00
52-108	8.	Soldering and welding	818.00
52-109	9.	Office and sales clerk	850.00

52-110	10.	Needle trades	907.00
52-111	11.	Masonry	853.00
52-112	12.	Sheet metal working	1,490.00
52-113	13.	Cooking and baking	1,490.00
**52-900	--	Evaluator package	58.00
** --	--	Installation/orientation--2-day program (Conducted by Singer/Graflex personnel)	200.00
** --	--	Shipping (Estimated and Invoiced)	XXX.XX

* Prices apply to purchases of ten (10) or more work-stations only.

** Non-optional items, required with all System purchases.

Selection of any ten (10) different of the above thirteen (13) work stations, plus the Evaluators' Package and the Installation/Orientation Program, will provide one complete Singer Vocational Evaluation System within a price range of:

Not less than $8,866.00 (plus shipping charges)

Nor less than $10,544.00 (plus shipping charges).

The Singer-Graflex System is applicable in:

a. Vocational rehabilitation centers
b. Vocational/technical schools
c. NAMS/JOBS programs
d. Manpower development and training centers
e. Correctional programs
f. Business and industry training programs
g. Labor union training programs Job Corps centers

h. Community training programs

The Graflex Education and Training Division will work with any organization to tailor the Vocational Evaluation System to the customer's requirements and smoothly integrate it into existing programs. They will also work to develop individual stations or an entire system to meet particular requirements.

Cerna (19) has described the use of the Singer-Graflex system in job station assessment in the Wisconsin State Prison. In many cases, performance was poor though not all men with low results can be classified as retarded. Many of these men have not had a good work record and certainly most have no salable skills.

The Singer-Grafles (S/G) System was used both to present job information as well as to evaluate interest and ability. Other evaluative tools such as the interview, aptitude tests, and interest inventories were used as needed. Results from the California Achievement Test (CAT) and the General Aptitude Test Battery (GATB) were available on all men coming through the vocational evaluation lab. The system was not used to provide a vocational label or a ready-made answer to vocational problems. Cerna observed, "Like with any type of evaluation, *observation* is the *key* word." (p. 56)

The evaluation report included a summary of job sample results, observations of critical behavior, and recommendations. It was used together with other reports by the security coordinator, program coordinator, guidance counselor, D.V.R. counselor, and a summary of test results at the staffing to help determine an appropriate career plan.

The men were scheduled for a four day evaluation period which they felt was very helpful. Usually six men were scheduled each week, although as many as eight and as few as three were scheduled. Six seemed to be the number of men that could be handled by one evaluator.

Cerna reported no major mechanical problems. The operation of the system i.e. the changing of tapes, film strips, adjustments, etc. was left entirely to the staff. Operational cost of consumable supplies was reduced to approximately $2.00 per person. The alterations suggested were (1) painting the tool outlines; (2) securing the hooks to the pegboard with wire; (3) use of a card and time clock for recording time and; (4) modification of the blue response sheet to show errors.

The S/G System appears to have good face validity. The students responded positively to the job samples as providing excellent prevocational information on the different job categories.

As a result of information provided by this system, the students were able to see a relationship between the work sample and actual job performance. The evaluation became increasingly meaningful, once an interest area was found.

The one difficulty noted in assessing youth who were returning to a school system to complete their education is that a very definite vocational plan was premature, as vocational interests may change rapidly at this age. Cerna felt that a career educational plan was more useful.

A second type of job station analysis is the Jewish Employment and Vocational Service (JEVS). JEVS is used to gain personality, dexterity and coordination information and determine occupational grouping where success is likely. Several modifications of the JEVS may be made. Not all the work samples need to be administered. Fewer than the recommended three evaluators and JEVS supervisor can be utilized to monitor the work stations. Evaluators can do the work of both the evaluator and supervisor without great difficulty. They can also provide the feedback interview and write the report. The JEVS can be set up for 5 to 7 students to be observed simultaneously or individually, depending on the amount of supervision available.

It may be desireable to shorten the JEVS program for two reasons. First, the total amount of time required to administer the program will be shortened. Secondly, some of the JEVS tasks can be duplicated on work stations. A list of the work samples that might be excluded follows:

Work Stations:	Reason for Dropping Item:
Rubber stamping	Task may be too simple for many students
Budget assembly	Time consuming and difficult to score
Tile sorting	Task may be too simple for many students
Metal square fabrication	Employment or utility may not be available
Hardware Assembly	Very similar to nuts and bolts task

The strength of the JEVS system lies in its objectivity. It forces objectivity in the work sampling process thereby reducing the use of terms such as "I feel," "it seems," "it would appear." The system is standardized and has norms and provides specific information on tasks performed by students. It also indicates a grouping of occupations where the student is likely to succeed. This information can be coordinated with the job titles in the Dictionary of Occupational Titles.

The major weakness of the JEVS system is that students may find it difficult to see a relationship between individual work samples and real work situations.

One additional type of job station task analysis is the TOWER SYSTEM. A three week training course for TOWER evaluators, conducted by experienced ICD vocational evaluation personnel, provides thorough orientation and permits the trainee to establish an evaluation unit using the TOWER methodology. In addition, it functions as an overview of the operation of a multi-disciplinary, comprehensive rehabilitation center of which TOWER evaluation is an integral part. The TOWER job categories reviewed are:

Clerical

1. Business arithmetic
2. Filing
3. Typing
4. Payroll computation
5. Use of sales book
6. Record keeping
7. Correct use of English

Drafting

1. T Square, triangle
2. Compass
3. Working drawing
4. Drawing to scale
5. Geometric shapes

Drawing

1. Perspective
2. Forms, shapes and objects
3. Shading, tone and texture
4. Color
5. Free hand sketching

Electronics Assembly

1. Color perception and sorting
2. Running a 10 wire cable
3. Inspecting a 10 wire cable
4. Lacing a cable
5. Soldering wires

Jewelry Manufacturing

1. Use of saw
2. Use of needle
3. Electric drill press
4. Piercing and filing metals
5. Use of pliers
6. Use of torch in soldering

7. Production task

Lettering

1. Lettering aptitude
2. Alphabet and use of T Square
3. Use of pen and ink
4. Use of lettering brush
5. Brush lettering

Machine Shop

1. Reading and transcribing measurements
2. Blueprint reading
3. Measuring with a rule
4. Drawing to measurement
5. Metal layout and use of basic tools
6. Drill press operation
7. Fractions and decimals
8. Measuring with the micrometer caliper
9. Mechanical understanding

Mail Clerk

1. Opening mail
2. Date-stamping mail
3. Sorting mail
4. Delivering mail
5. Collecting mail
6. Folding and Inserting
7. Sealing mail
8. Mail classification
9. Use of scale

10. Postage calculation

Optical Mechanics

1. Use of metric ruler
2. Use of calipers
3. Lens recognition
4. Lens centering and marking
5. Use of lens protractor
6. Hand beveling and edging

Pantograph Engraving

1. Introduction to the Engravograph (Pantograph) machine and determination of aptitudes for setting pantograph arm ratios
2. Setting up, centering copy and determining specific ratios
3. Use of workholder and adjustment of cutter
4. Setting up and running off a simple job

Sewing Machine Operating

1. Sewing machine control
2. Use of knee lift and needle pivoting
3. Tacking and sewing curved lines
4. Upper threading
5. Winding and inserting bobbin
6. Sewing and cutting
7. Top stitching

Welding

1. Measuring
2. Making a working drawing

3. Identifying welding rods
4. Use of acetylene torch
5. Use of rods and electrodes
6. Use of torch and rod
7. Measuring and cutting metal
8. Soldering

Workshop Assembly

1. Counting
2. Number and color collation
3. Folding and banding
4. Weighing and sorting
5. Counting and packing
6. Washer assembly
7. Inserting, lacing and typing
8. Art paper banding

The Wide Range Employment Sayle Test was developed for use with individuals between the ages of 16 and 35 and can be administered individually or in small groups (3 to 6 persons). It takes approximately 1½ hours for individual administration and 2 hours for group administration. The job station task analysis may be readministered at regular intervals to derive a learning curve which distinguishes between learning rates. These tasks should be administrated and interpreted by trained evaluators. They include specific work samples described below.

Sample no. 1--Folding:

This activity would relate mostly to secretarial--clerical--

general office and statistical procedure. It entails the handling and folding of paper envelopes--glue--tags. Some degree of dexterity and orderliness is required.

Sample no. 2--Stapling:

Requires a degree of spatial judgment--ability to use mechanical devices and manual energy output related to industrial application such as spot welding, heat sealing, carton manufacture, book binding, press operation (drill and printing), stamping, sewing, general small machine operation, requires some degree of accurate control.

Sample no. 3--Bottles and Pegs:

Requires dexterity, color recognition, coordination. Application to industry would be in small parts packaging and order filling in automotive, electronics, machine parts, toys, etc.

Sample no. 4--Rice Measuring:

Entails the filling of vials of varying sizes with fine material. Requires good judgment of quantities and some degree of speed of estimation. Industry application: drug (wholesale) industry, food, paint, cosmetics, etc., where specific measurements are required.

Sample no. 5--Screws:

Requires the ability to follow a prescribed pattern or sequence using various kinds of nuts, bolts,and washers. Requires the ability to recognize pattern and pattern construction, good dexterity, mechanical aptitude. Industry application: wide range of machanical and semi-mechanical fastening of related parts, readily adaptable to solid state electronic circuitry, placing of diodes, resistors, transistors, etc., on a circuit board and fastening with screws, solder, etc.

Sample no. 6--Tags:

The ability to work with two different types of materials--semi-flexible (tags) and very flexible (lacing)--requires some degree of finger dexterity and judgment (keeping ends even). Applications are quite naturally garment industry, textile-parts identification, any type of job requiring identity and dexterity.

Sample no. 7--Swatch Pasting:

Requires neatness, good judgment with space relation, some degree of artistic appreciation, reasonable amount of dexterity. Application to industry would be creation of sales samples, crafts, display, advertising paste-up, artistic arrangement.

Sample no. 8--Collating:

Entails the compiling of different colors (color discrimination in a prescribed sequence or order (patterns) and filing in a prescribed manner (neatness and order). Applicable to office procedures, inventory control, order packing.

Sample no. 9--Colors:

Ability to differentiate colors, hues, shades, placement judgment, arrangement. Again applicable to preparation of sales material for yard goods, paints, advertising, craft work, displays.

Sample no. 10--Pattern Matching:

The ability to differentiate colors, analyze arrangements, structure placement and composition, adaptable to arts, construction of complex models, pattern making, architecture, marine-aircraft construction, electronic circuitry, and the like.

Nighswonger (1973) has described a profile that can be prepared and interpreted on the basis of job information taken from 11 work samples. The profile is shown in Figure 1. The types of tasks used to select each of these selected work characteristics and these immediate interpretations into types of vocational experience is provided in Figure 1.

Insert Figure 1 about here

Structural and Mechanical Visualization

If a person is to remain realistic as he entertains thoughts of working in any field related to mechanics and structures, he must have adequate knowledge of his capacity to visualize. Those who counsel and instruct people who are attempting to choose this type of vocation must share this knowledge.

A few of the areas to which this test relates are:

Drafting

Welding

Carpentry

Commercial Art

Masonry

Needle Trades--Fabrics

Surveying

Excavating

Steel Construction

Design Engineer

Traffic Controllers

Graphic Arts

Discrimination Tests

The capacity to discriminate may be exercised in three manners:

1. Discrimination by size and shape of objects.
2. Discrimination by color.
3. The tactile sense or discrimination by touch.

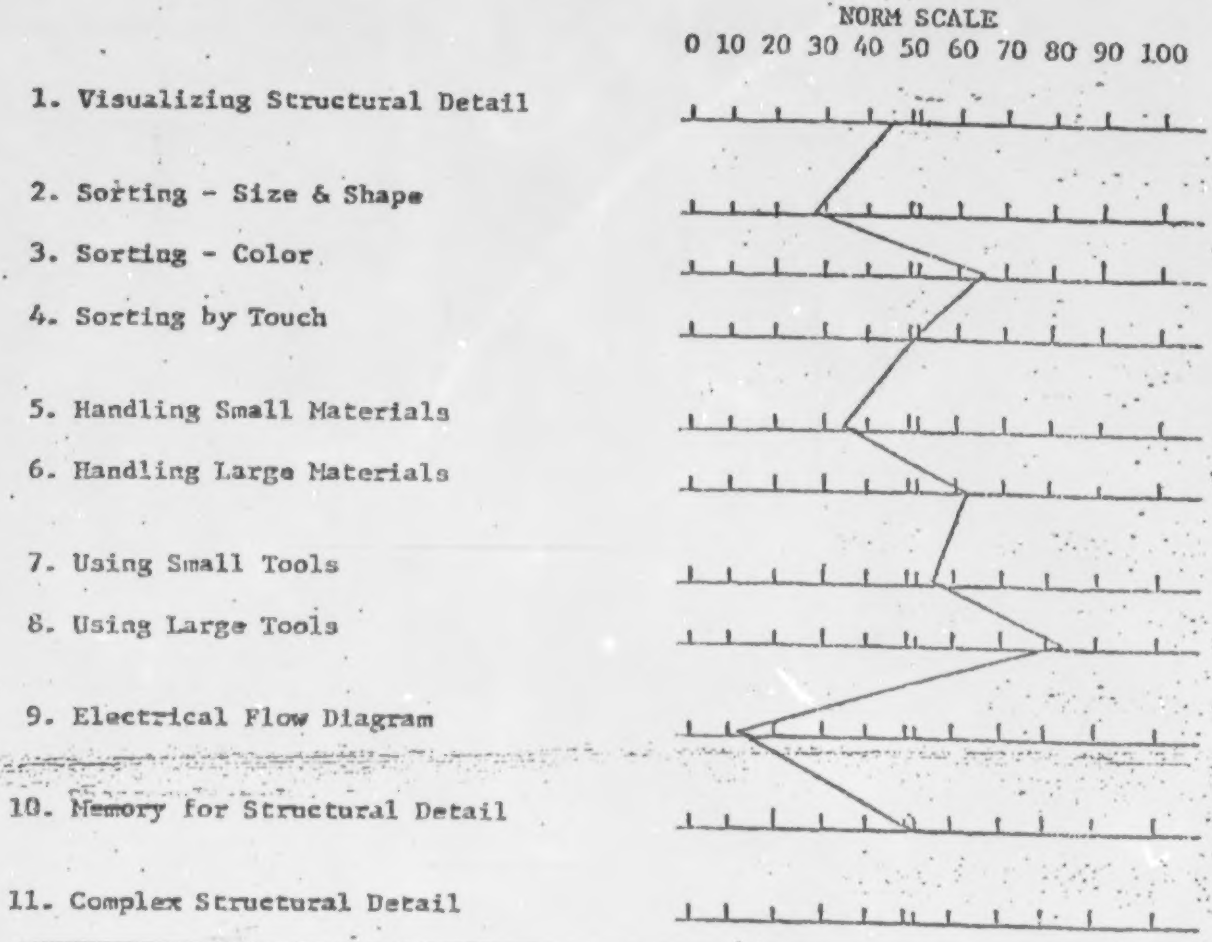
Profile of Selected Work Characteristics

Name ____________ F Date January 29, 1973

Age 17 Grade Level Completed 12 School/Organization Central Catholic High
Grand Island, Nebraska

Work Experience ____________

____________ Tester ____________



NOTES:

With 7 of the 10 assessments near or to the left of center, Kay may feel a desire to seek training and employment in general work areas rather than in industrial or technical lines. She does use regular or larger tools and handles materials well enough to work at about the semi-skilled level on an industrial assembly line if she desired. She might like to review the TAP papers that relate the individual tests to specific jobs and read about those job possibilities in the Occupational Outlook Handbook. If she desires general work areas she should review the U.S. Office of Education Cluster outline and possibly be surprised to find that there may be more career opportunities in the general areas than in specific lines. These are also described in the Handbook.

T.Q. (Talent Quotient) 103

These could relate to:

Electronic Assembly
Dentistry
Hardware Packaging
Art
Watchmaking
Flower Arranging
Drafting
Osteopath
Body and Fender
Decorating
Health Related

DEXTERITY - NO TOOLS

It is interesting to note that many people who appear entirely incapable when attempting to work with tools, appear surprisingly capable when given the opportunity to demonstrate dexterity in handling raw materials without tools.

Relate these to such as:

Factory Assembly
Mail Sorting
Ceramics
Bookbinding
Electronic Component Layout
Partsman
Hardware Packaging

FINE DEXTERITY TEST

The Talent Assessment Programs Small Tools Test utilizes one hand and two hand operations.

The results from this test are quite meaningful to those who might be interested in such things as:

Data Processing
Office Machine Repair
Sewing (hand)
Laboratory Technician
Electronics Service
Jewelry Making

Negative Retouching
Watchmaking
Surgery
Electronics Assembly
Photo Coloring
Dentistry
Dental Technician
Instrument Technician
Appliance Service
Factory Bench

It requires about fifteen minutes for preparation and administration.

The development of local norms is imperative.

DEXTERITY WITH LARGER TOOLS

The Large Hand Tools Dexterity Test is utilized to determine a pupils capacity to handle medium or large size tools. The results are immediately meaningful to people who are entertaining interest in any of the numerous fields of mechanics. Use of this test requires about five minutes of preparation and ten minutes of actual testing. It may be used on both men and women where workshop activities and/or factory production types of work are anticipated. The establishment of local norms is imperative. This test is related to work in--

Automotive Mechanics
Body and Fender
Cabinet Making
Upholstering
Small Engine Service
Major Appliance Service
Small Appliance Service
Farm Equipment Assembly
Office Machine Repair
Welding

CIRCUITAL VISUALIZATION

In this age when electricity and electronics play an ever-increasing role, it is quite important that we measure capacities for circuital visualization. This can be accomplished with a test such as that which follows.

Norms for this test can be established after about 100 people have taken it.

Although not commonly attempted, it is possible to measure a person's capacity to retain detail related to circuitry.

This test should be administered only to those people who express a desire to learn of their strengths and/or weaknesses in circuital visualization.

Relate these to such as:

Electric Wiring
Appliance Service
Factory Assembly
Power Transmission
Auto Electrical
Electronics
Telephone Service
Drafting

RETENTION OF STRUCTURAL AND MECHANICAL DETAIL

The retention of detail is quite important to a successful worker. Approximately two hours following the measurement of visualization, the same procedure should be exercised except the model or pattern is not present.

When norms are being developed on this test, remember it is imperative that this time-lapse between the giving of the visualization tests and this one be relatively constant. An approximate two hour lapse works well.

STRUCTURAL AND MECHANICAL VISUALIZATION IN GREATER DEPTH

If a person is of relatively high intelligence and appears exceptionally strong on the first test of mechanical and structural visualization, he should be given an opportunity to attempt the more difficult VISUALIZATION TEST.

This test should be offered only to people who might be potential engineers, engineer's helpers, or draftsmen.

Relate this to such as:

Design Engineering
Drafting Engineering
Utility Engineering
Structural Engineering
Environmental Control
Maintenance Engineering

III. Work Stations

Work stations are coordinated, structured, and closely supervised on job experiences of short duration. They are not long term apprenticeships, but opportunities for youth to experience a specific type of actual work experience, while gaining some understanding and attitudes (positive we hope) toward work in general.

The objectives of the work stations according to White and Redkey (1956) are:

1. To determine aptitudes, interests, and abilities through systematic and supervised sampling in the major occupational areas of clerical work, skilled and semi-skilled occupations... service and sub-professional occupations.
2. To provide a specified period for the evaluation of the student's performance in actual work situations.
3. To assist in developing acceptable work habits.
4. To assist in developing work confidence.
5. To determine work tolerance in actual or simulated work situations.
6. To provide opportunities for experimentation in the adaptation of vocational equipment to meet the requirements of a work situation.

Determining Job-Readiness Behaviors.

Bitter and Bolanovich (19) describe a Work Adjustment Rating Form (WARF) that serves to determine job readiness. The WARF contains eight subscales which purport to describe:

1. Amount of supervision required
2. Realism of job goals
3. Teamwork--ability to work with others

4. Acceptance of rules/authority
5. Work tolerance
6. Perserverance in work
7. Extent client seeks assistance.
8. Importance attached to job training

The WARF can be completed in 7 minutes or less. It takes 5 minutes to score. Each subscale is represented by items describing five different levels of performance. The following five items are taken from the "Amount of Supervision Required" subscale:

1. Client works with difficulty, even under constant supervision and after getting considerable training.
2. Client can work on his own after thorough training if his work is frequently observed and checked.
3. With training and direction, client can work independently under occasional supervision.
4. Once shown what he must do, client applies himself diligently without much supervision.
5. Client catches on easily and does his work with practically no supervision. (p. 617)

Kidd (1967) has also developed a job readiness evaluation checklist that he encourages people to reprint and use, as it is not copyrighted.

Job Readiness Evaluation Check List

Date Completed ....

Name .... Social Security No. ....

(Last) (First) (Middle)

Birthdate .... Sex .... Race .... Telephone Number ....

Address ....

(Number) (Street) (City) (State) (Zip Code)

Parent(s) or Guardians (specify) ....

Form filled out by (teacher's name) ....

District .... School ....

Current Status:

....

....

Work Experience (if any) (including in school):

....

....

Please check in the spaces the statement best describing the individual *as compared with the typical educable retardate of his age.*

	Well Above Average	Above Average	Average	Below Average	Well Below Average
Cooperation					
Effort					
Cautious—Safety Conscious					
Accuracy and Consistency in Following Directions					
Dependability:					
Promptness					
Independence					
Awareness of time					
Emotional Controls:					
Concentration					
Perseverance					
Steady rate and adaptability					
New task; two or more tasks at once					
Self Correction					
Accepting Constructive Criticism					
Relationship with Others:					
Sociability					
Teamwork					
Challenged by competition					
Physical Stamina					
Verbalization—Self Expression					
Personal Appearance—Grooming					
Memory					
Manual Dexterity					
Choosing—Decision-making					
Speech					
* Describe					

Vision: Seems normal without glasses ......; with glasses ......

Seems to have vision problem * without glasses ......; with glasses

*Specify nature

* Job Readiness Evaluation Check List—Page 2

Motor Limitations:

			Normal	Mild Limitation	Severe Limitation
A. Upper Extremities	Hands	Right			
		Left			
	Arms	Right			
		Left			
B. Lower Extremities	Feet	Right			
		Left			
	Legs	Right			
		Left			
	Hips	Right			
		Left			

Other physical deviations:

Has he used public transportation alone? Yes ...... No ......; if No, do you think he is capable of doing so? Yes ...... No ......

Can he read? Yes ...... No ......; write his name? Yes ...... No ......;
write simple messages? Yes ...... No ......; tell time? Yes ...... No ......;
make change? Yes ...... No ......; do simple counting? Yes ...... No ......;
arrange alphabetically? Yes ...... No ......;
arrange serially by number? Yes ...... No ......; tie knots and bows? Yes ...... No ......;
use a telephone? Yes ...... No ......; use a ruler? Yes ...... No ......;
use a yardstick? Yes ...... No ......; use weighing scales? Yes ...... No ......;
do simple sorting as by color or size? Yes ...... No ......;
do simple cleaning? Yes ...... No ......; read simple gauges and dials? Yes ...... No ......;
locate or identify things by number, color, etc.? Yes ...... No ......;
use simple hand carpentry tools? Yes ...... No ......;
use simple hand sewing equipment? Yes ...... No ......
Does he adhere to acceptable standards of public behavior? Yes ...... No ......
Can he fill out an application blank properly? Yes ...... No ......

Achievement Test Scores: Date..
Word Knowledge .... Reading ....
Spelling .... Arithmetic Problem Solving ....

Is his vocational goal(s) realistic? Yes ...... No ......*
*If No, why? ....
....
....

Please note any specific way in which the home is supporting or hindering the program:
....
....

Preparing the Student for Actual Work Experience

In many cases the student who is introduced to a specific work station in the community will have little or no formal training on the particular job. There is a need for job orientation including learning names, locations, rules, procedures, etc. Providing this type of orientation should be considered a part of the career-information process.

For additional lists of vocational, social, and academic skills, which may be used to determine job readiness, the reader is referred to *Guide to Jobs for the Mentally Retarded*, (Peterson and Jones, 1964), published by American Institute for Research.

It would be ideal if a formula were present for preparing a youth for work experiences after it has been determined he is or isn't ready for such an experience. Work station or job experience is only useful when it moves the student closer to his long range career education goals. It profits no one to utilize work stations as work details for unselected youth.

Generally speaking, some type of orientation is necessary to inform students what is expected of them and what it is that they might learn on the work station. Learning about the work station aspect should not be left up to an informal word of mouth exchange. Classroom preparation, work site visitations, and use of the career information center materials will assist the youth in this orientation.

Three major areas that must be included in an integrated (Academic, Vocational, and Counseling) career education program are:

1. The social skills that promote human relationships, the major reason most people lose jobs.
2. Work attitude, the feelings that one holds toward work in general, and a given job specifically - *desire to do the job*

3. And, finally, the aptitude or skill to complete the task, which is very seldom the reason for job failure.

These three areas may be assessed and developed by work station experiences, especially those located in the community on actual job sites.

Types of Employment

The institution and community will determine the types of employment available for work stations as union rules, age laws, and the number and type of work experiences offered in a given setting vary. While it is true that some work stations possibilities are overlooked, work coordinators are generally competent in identifying job sites with potential.

___________(19) have provided seven stipulations to consider in locating jobs in the community.

In making contact with prospective employers, the work-experience coordinator should:

1. Introduce the program to employers, indicating the potential and purpose of the program.
2. Determine whether any job offered is likely to continue for the duration of the school semester.
3. Ascertain whether the employer understands his responsibility in providing adequate supervision of the student.
4. Evaluate the facilities available in terms of appropriate learning opportunities.
5. Determine whether the job will provide training in an area in which it is probable that a beginner will have a reasonable chance of obtaining full-time work upon graduation, if desired.

6. Find out if the duties to be performed are within the student's ability, yet sufficiently challenging (particularly important for exploratory work stations).
7. Discover whether all appropriate aspects of the job will be sampled rather than merely those activities which are routine (especially important for exploratory work stations). (p.43)

In addition, Peterson and Jones (1964) have pointed out the importance of preparing the student for employer contact. It may be helpful to rehearse with a student the kinds of questions the employer is likely to ask so that he gains confidence in his ability to talk with a prospective employer.

Davis (1975) has identified a number of potential work station sites and has prepared a brief description of each. It is his belief that all work station supervisors must see themselves as a vital part of the program, or both they and the youth will feel less than satisfied with the experience. He encourages work station supervisors, (regular paid employees) to take an active part in teaching job skills and working in a supervisory role. It is his observation that the work experience is only as good as the tradesman and employees supervisor. The jobs he has developed:

FOOD SERVICE JOBS

Bakery
Nature of the work: Baking, slicing, and wrapping bread every day; baking doughnuts, pies, cakes; cleaning all mixers, ovens, racks, etc.

Skills or requirements: Must keep self clean. Must be able to put up with flour in the air and on the clothes. Must like to work with food.

What is learned: How various bakery products are made.

NIU

Butcher Shop
Nature of the work: Cleaning and caring for all equipment. Hauling, cutting, and storing of all meat used in the institution.

Skills or requirements: Must be willing to learn certain skills of the butchering trade. Must keep self clean at all times.

What is learned: How to use the various knives, saws, and tools. How to identify various cuts of meat. What the carcas and bone structures of various animals are like.

Commissary
Nature of work: Grill cooking, making and serving beverages and sandwiches, general cleaning, storing all incoming deliveries, helping stock the shelves.

Skills or requirements: Must be willing to learn how to prepare various grilled foods. Must keep self clean and neat at all times.

What is learned: How to prepare food quickly and efficiently. How to keep a snack bar clean. How to deal with people in a polite manner.

Dining Room
Nature of work: Cooking on the grill, cleaning the dining room area, running kitchen appliances.

Skills and requirements: Must keep self clean. Must be able to work quickly and efficiently in order to feed a large number of people.

What is learned: How to operate a cafeteria type of restaurant.

Kitchen
Nature of work: Preparing meat for the ovens, opening canned vegetables and fruits, helping to season foods, operating kitchen machinery, preparing food, distributing food to the cottages, cleaning.

Skills or requirements: Must have an interest in working with food.

What is learned: How to prepare different kinds of food. How to prepare food so that it is sanitary and appetizing.

SERVICE JOBS

Barber Shop
Nature of Work: Cutting and trimming hair, shaving, learning to use the different instruments such as scissors, razors and shavers.

Skills or requirements: Must be 16½ years old. The complete course in barbering requires 1872 hours of training, but a student can earn any number of those hours here, and then transfer them to any barber school.

What is learned: You can learn enough to qualify to take the state board test for a license in barbering.

Laundry
Nature of work: Sorting clothes, preparing laundry soaps, bleach and starch, operating washers, extractors, dryers, and mangle irons, loading and unloading machines, folding clothes, packing and stocking clothes and linens for delivery. Also assisting in pressing.

Skills or requirements: Must prefer mechanical indoor work. Must like to do the same work over and over.

What is learned: Care and cleaning of clothes.

Runner
Nature of work: Carrying messages from building to building.

Requirements: Must be reliable and trustworthy.

Learn responsibility.

Main Gate
Nature of Work: Doing various types of janitorial work such as sweeping floors, emptying waste baskets, polishing floors.

Requirements: Must be responsible and be here 30 days.

Learn responsibility.

Cleaning Detail (Large Buildings)
Nature of Work: Doing various types of janitorial work such as sweeping floors, emptying waste baskets, polishing floors.

Cleaning Detail (continued)
Requirements: Must be willing to take instruction and to work as a team with several other boys.

What is learned: Proper procedures for cleaning offices, etc.

MECHANICAL JOBS

Carpenter Shop
Nature of work: Helping to carry tools, helping to use hand tools such as hammers, and screwdrivers, helping to keep the carpenter shop clean. No power tools are used by students. General repairing of things inside and outside buildings.

Requirements: Helps if you have a mechanical interest, and like work with wood.

Learn proper use of tools and safety procedures.

Electric Shop
Nature of work: Doing electrical repair work inside and outside of the institution. Includes such things as air conditioning, heating, lighting, working on the high lines, repairing motors, repairing electrical appliances.

Requirements: Interest in electricity.

Learn electrical wiring, use of electrical tools, and various safety procedures.

Plumbing Shop
Nature of work: Reading blue-prints, caulking lead joints, making lead flashings, installing sewers, wastes, and drains, installing water lines, installing septic tanks, gas lines, repairing faucets, working with water softeners.

Requirements: Must have some mechanical ability. Should like to work with your hands, and not mind work that is sometimes heavy or dirty.

Learn how to think and work mechanically; how to use the right tools for the right job.

Paint Shop
Nature of work: Painting inside and outside, scraping, patching, replacing windows, working with putty and glass, sometimes wall-paper hanging.

Paint Shop (continued)
Requirements: Should like to work with hands, artistic ability would help.

Learn about painting, mixing colors, stirring and handling paint, care of brushes, and how to apply paint properly.

Print Shop
Nature of work: setting type, proofreading, operating printing presses, binding the papers in groups to be sent out to various places in the institution, delivering papers, cleaning the presses.

Requirements: Reading and spelling ability is very important. An interest in mechanical or clerical work is important. Typing experience in not necessary but would be helpful.

Learn how presses operate, how various newspapers, posters, etc., are printed and distributed.

Powerhouse
Nature of work: Those in the boilerroom must pull the ashes out of the pit and keep the fires going. One boy is needed to clean the engine room.

Requirements: Boys at the powerhouse work at unusual hours, including all through the night.

Learn how electric power is generated.

Garage
Nature of work: Changing tires, sometimes work on the engines, wash the state cars, pick up the carriers, deliver the bread and milk on the truck, take out and pick up the laundry.

Requirements: Mechanical interest is important.

Learn proper care of motor vehicles.

Greenhouse
Nature of work: The culture of plants, transplating, planting the seeds and later planting the flowers and bushes on the grounds.

Requirements: Interest in science, especially in botany, the study of plants.

Learn to properly care for plants.

Landscaping
Nature of work: Improving the appearances of the grounds by cutting and trimming the grass, planting bushes, trimming bushes, etc.

Requirements: Must like to work outdoors.

Learn proper care of the shrubs and grass.

Marking Room
Nature of work: Marking all sheets, blankets, and pillows slips. Sewing identification tags on all dark color clothing, marking all light colored clothing, keeping records, stocking clothes according to size, packing and shipping of goods, caring for machines.

Requirements: Mechanical and clerical interests are helpful. Must like work that is routine and systematic.

Learn how to mark, sort, and store clothing and other textile items.

Storerooms-General Store and Kitchen Store
Nature of work: Helping to unload and store goods that come into the institutions. Such as soap, clothing, and food. Making up orders and cleaning up.

Learn how stockrooms are kept in good order.

For a more detailed list of potential jobs which might be used for work stations and their requisite tasks, the reader is referred to Peterson and Jones, (1964).

Job Analysis

An invaluable aid to placing students into appropriate work stations or actual jobs and in evaluating their work performance is job analysis. Job analysis is a systematic means of observing jobs, determining significant worker requirements, physical demands, and environmental conditions, and reporting this information in a concise, usable format.

Job analysis in its simplest form consists of

What - (the worker does)
How - (he does it) and
Why - (he does it; the purpose or objective for the worker action).

The three basic components of job analysis are identification of the job, work performed, and performance requirements.

Job analysis may be used to:

1) Evaluate the skills of the student
2) analyze the work station or job in order to determine if it is appropriate for a particular student and
3) assess performance on the work station or in an actual job.

This type of systematic use of job requirement data and ability or skill assessment data can facilitate the career education process and eliminate the trial-and-error approach.

Information obtained from the work samples used in job stations can and should be utilized in the job analysis. In this manner students may be placed and appropriately evaluated in work stations which are consistent with their individual skills and interests rather than in those work stations which happen to be "available" at a certain time.

The following formats are included as a guide to performing a comprehensive job analysis. They may be modified according to the user's particular needs.

JOB ANALYSIS OF 7X:103

Name of Firm(s):
DOT Title and Code:
Plant Title:

Indicate the importance of each job element by noting the frequency with which it occurs.

N -- Element NOT required for successful job performance.
O -- Element required occasionally.
F -- Element frequently required.
C -- Element constantly required.

Job Requirements	Frequency
1. COMPUTATIONAL SKILLS	
A. Adding	
B. Subtracting	
C. Multiplying	
D. Dividing	
E. Simple Fractions	
2. MEASUREMENT SKILLS	
A. Number Recognition	
B. Change Making	
C. Price Evaluation	
D. Use of rulers or tape measures	
* E. Use of simple gauges	
* F. Use of kitchen measuring devices	
3. COMMUNICATION SKILLS	
A. Reading - labels or written instructions	
B. Following recipe instructions	
C. Comprehending oral instructions	
D. Writing brief notations	
E. Writing customer's order	
F. Talking with supervisor and/or co-workers	
G. Talking with public	
H. Ability to use alphabet	
I. Use of telephone	
J. Use of telephone directory	
4. PERSONAL ATTRIBUTES	
* A. Suitable attire	
* B. Hygienic requirements	
C. Pleasant Manner	
D. Poise	
E. Tact in Dealing with Public	

Job Requirements	Frequency
5. MANIPULATIVE SKILLS	
*A. For simple hand tools and utensils	
* B. Operation of simple machines manipulating controls and making minor adjustments	
C. Operating cash register	
*D. Performing hand work operations such as folding, sorting, slicing, assembling, etc.	
*E. Operate and service motor vehicles.	
6. MISCELLANEOUS SKILLS	
A. Ability to work with tools and equipment safely.	
B. Ability to accept responsibility for safety of self and others	
C. Ability to work in harmony with others	
D. Willingness to accept responsibility for handling of money	
E. Ability to work under close supervision	
F. Ability to work independently or under general supervision.	
7. OTHER SPECIFIC SKILLS Describe:	

* Specify [illegible]

5100-48397-1/72

JOB PROFILE

IDENTIFICATION

DOT Title(s)	DOT Code(s)	Employer's Job Title(s)	
Name of Firm	Address	Person to See	Telephone
Union	Starting Salary	Fringe Benefits	

WORK PERFORMED

PERFORMANCE REQUIREMENTS

Responsible For:

Job Knowledge:

Judgment Required:

Type of Supervision:

Type of Work (Repetitive, Routine, or Varied):

Advancement Opportunities:

Other Requirements (Analysis of Job Requirements Attached?):

Employer Tests:

5100-48398-1/72 PHYSICAL DEMANDS AND ENVIRONMENTAL CONDITIONS

NAME OF FIRM(S) ____________________

____

JOB TITLE ____________________

DOT TITLE AND CODE ____________________

PHYSICAL DEMANDS			COMMENTS
1. STRENGTH			
a. Standing ______ %			
Walking ______ %			
Sitting ______ %			
	Frequency	Weight	
b. Lifting			
Carrying			
Pushing			
Pulling			
2. CLIMBING			
BALANCING			
3. STOOPING			
KNEELING			
CROUCHING			
CRAWLING			
4. REACHING			
HANDLING			
FINGERING			
FEELING			
5. TALKING			
Ordinary			
Other			
HEARING			
Ordinary Conversation			
Other Sounds			
6. SEEING			
Near Vision			
Far Vision			
Depth Perception			
Color Vision			

RATINGS: PHYSICAL DEMANDS: S L M H VH 2 3 4 5 6

STRENGTH REQUIREMENT: S - Sedentary (to 10#), L - Light (to 20#), M - Medium (to 50#), H - Heavy (to 100#), VH - Very Heavy (over 100#)

FREQUENCY SCALE: O - Occasionally, less than 1/3 of time, F - Frequently (1/3-2/3), C - Continuously, over 2/3

ENVIRONMENTAL CONDITIONS	FREQUENCY	COMMENTS
ENVIRONMENT Inside________% Outside________%		
2. EXTREME COLD WITH OR WITHOUT TEMPERATURE CHANGES		
3. EXTREME HEAT WITH OR WITHOUT TEMPERATURE CHANGES		
4. WET AND/OR HUMID		
5. NOISE		
Injurious to ears		
Distracting for Type of Work Performed		
6. HAZARDS		
Mechanical________		
Electrical________		
Burns________		
Explosives________		
Radiant Energy________		
Other________		
7. ATMOSPHERIC CONDITIONS		
fumes________		
Odors________		
Mists________		
Gases________		
Dusts________		
Poor Ventilation________		
Other________		

RATINGS: Working Conditions: Inside Outside Both 2 3 4 5 6 7

PROTECTIVE CLOTHING OR PERSONAL DEVICES FURNISHED OR REQUIRED

JOB ANALYSIS CHECKLIST

JOB TITLE (Plant Title)____________________

Alternate Titles____________________

EMPLOYER REQUIREMENTS

Education

8th Grade ____________

2 years High School ____________

H.S. Graduate ____________

Apprenticeship (years) ____________

Technical or Business school____________

College Graduate ____________

Type of Degree ____________

Experience/Training

30 days or less ____________

3-6 months ____________

1-3 years ____________

3-5 years ____________

over 5 years ____________

Amount and type of____________

Training required____________

JOB SUMMARY (WHAT, HOW, WHY)

Machines Operated (specify):____________________

Measuring Devices Used (specify)____________________

Specific Skills Required (such as welding, blueprint reading, plumbing, etc.)______

____

Knowledge of Formulas or Processes (specify):____________________

Is Machine Operator Responsible for:

Set-up ________ Minor repair/adjustment________

Major Repair ________ Lubrication ________

Other Required Job Duties Not Observed (specify):____________________

____

PHYSICAL DEMANDS

Strength Requirement	Occasionally (less than 1/3 of time)	Frequently 1/3-2/3	Continuously Over 2/3
S - Sedentary (to 10#)	________	________	________
L - Light (to 20#)	________	________	________
M - Medium (to 50#)	________	________	________
H - Heavy (to 100#)	________	________	________
VH - Very Heavy (over 100#)	________	________	________

HAZARDS

No Hazards ____________

Mechanical Hazards__________ Safety Devices__________ Protective Clothing______

Environmental Hazards______ Fumes_____ Odors______ Mists______ Heat _____ Cold_____

SKILLS, KNOWLEDGE, ABILITIES

Responsibility for (indicate monetary value and results of negligence):

Care of Equipment____________________

Appearance and/or quality of product____________________

Supervision of others____________________

Safety of others____________________

Cooperation of others____________________

Other Responsibilities (specify)____________________

Job Relationships:

Promoted From____________________

Promoted To____________________

Supervised by____________________

Supervises (number of workers and titles)____________________

____

5100-48328-1/72

APPRAISAL OF ABILITIES

Name______________________________

ABILITIES	POSSESSED BY APPLICANT		COMMENTS
	Yes	No	
*1. Can perform simple arithmetic operations.			
2. Can make change and understand money values.		✓	
*3. Able to read and understand numbers on rulers, gauges, and other simple devices.			
4. Can communicate orally.			
5. Can read labels, recipes and instructions.			
6. Can write simple instructions or notations.			
*7. Can manipulate appropriate tools safely.			
*8. Can operate appropriate simple machines and apparatus.			
9. Has good personal appearance, neat, clean, etc.			
10. Adapts to change: A. With difficulty			
B. Moderately			
C. Easily			
11. Concentrates amid distractions.			
12. Maintains composure under tension.			
13. Works easily with people.			
14. Reliable, prompt and punctual. Follows an assignment through to completion.			
15. Able to meet and deal with the public.			
16. Able to work under close supervision.			
17. Able to work alone, with only general supervision.			
18. Efficient in use of expendable supplies.			
19. Remembers more than one instruction at a time.			
20. Able to use telephone.			
21. Able to use telephone directory.			
22. Able to adjust socially to community.			
23. Has leisure time outlets.			
24. Knows and can use alphabet.			
*25. Able to operate and/or service motor vehicles.			

* Specify on reverse side.

JOB ANALYSIS--Style of Writing

WORK PERFORMED Section (JOB SUMMARY)

I. Sentence Structure

Each sentence in this section answers the 3 basic questions of the job analysis formula.

What does the worker do? (Specific action taken)
How does he do it? (Methods used and knowledge applied)
Why does he do it? (Purpose of job)

II. Use of Words

A. Avoid vague, general words subject to many interpretations.

B. Select meaningful, accurate, descriptive worker action verbs such as the following:

Physical Action Verbs

- adjusts
- advances
- alines
- attaches
- Bends
- binds
- bolts
- chamfers
- clamps
- coins
- compresses
- covers
- creases
- drills
- erects
- extrudes
- feeds
- files
- forges
- fuses
- grooves
- hammers
- hones
- inserts
- miters
- perforates
- places
- planes
- polishes
- positions
- punches
- removes
- repairs
- sands
- screws
- shapes
- slots
- solders
- sorts
- splices
- sychronizes
- taps
- transports
- tumbles
- weighs out
- welds
- winds

Mental Action Verbs

- coordinates
- corrects
- devises
- directs
- determines
- evaluates
- inspects
- instructs
- oversees
- persuades
- suggests
- tests
- verifies

Obviously, this list is not all-inclusive, but may prove helpful in selecting expressive, explanatory verbs.

JOB KNOWLEDGE:

JUDGEMENT:

INITIATIVE:

ADAPTABILITY:

PERSONAL CHARACTERISTICS (appearance, quality of voice, etc.):

TEMPERAMENT & INTERESTS:

APTITUDES:

GENERAL (communicative ability, able to handle confidential data, etc.):

EXPANSION OF JOB DUTIES:

Summary

The intent of this chapter has been to delineate three components of the career education process -- career information centers, job stations, and work stations. While these three compoents are integral in enabling students to make appropriate career decisions, it must be kept in mind that they are only a means and not an end. There is not substitute for actual on-the-job experience. The most effective way to assess work capacity is in an actual job doing real work (for which one is paid) and interacting with other workers.

"I hear and I forget' I see and I remember' I do and I understand."

--Chinese proverb

An Integrated Curriculum and its Implementation For Chronic-Disruptive Youth

Charles A. Sloan

Northern Illinois University

AN INTEGRATED CURRICULUM AND ITS IMPLEMENTATION FOR CHRONIC-DISRUPTIVE YOUTH

by
Charles A. Sloan

INTRODUCTION

This chapter proposes guidance and implementation of learning, experiences, and hopefully success in the world of work outside institutionalization for chronic-disruptive youth. For purposes of organization and clarity the monograph is divided into four sub-sections: (1) Rationale for and Definitions of an Integrated Curriculum, (2) Components of an Integrated Curriculum for Chronic-Disruptive Youth, (3) Curriculum Planning and Implementation, and (4) Suggested Roles and Responsibilities of Personnel Implementing the Integrated Curriculum.

RATIONALE FOR AND DEFINITIONS OF INTEGRATED CURRICULUM

Rationale for an Integrated Curriculum

Throughout history, education and work have been held in high esteem by most societies. In addition, both education and work have ordinarily been closely inter-related; basic education has been and continues to be a pre-requisite for career development.

In earlier generations, children were regarded as a resource, both in the family and in occupations. School was frequently regarded as the place which provided the basic academic skills that had a significant impact on one's effectiveness in the world of work. Many people attended school only briefly while working with their parents. However, as a result of the rapid industrialization and urbanization processes in this country, more industrial as well as white-collar jobs developed. Professions demanded higher academic entrance skills and knowledge; consequently, in an effort to meet these demands, education expanded and became more diversified.

Society responded to industrialization and urbanization by enacting child labor laws and compulsory school attendance laws. Hagans and McLure (1974)[1] believe developments of this sort have had two negative effects, namely: (1) young adults have become more isolated from the adult society, and (2) the updating of technical preparation in step with occupational change has become more difficult. These forces gradually led critics of public education to call schools lock-step institutions and/or "holding pens." Mallory (1973)[2] referred to the school as an "aging vat" while Berg (1970)[3] believes educational institutions are "training robberies." Both Berg and Mallory hold that schools deprive young adults of the need for practical experiences in the world of work as it really exists in adult society.

Many economists, sociologists and social psychologists believe that work has high import in the lives of people. Work not only provides the economic means for living, but is important in satisfying social and psychological needs for self worth, and human interaction and dignity among one's peers. The latter is especially significant in adult society. Therefore, improved career and/or occupational education emphasizing "real" experience(s) needs to be considered for young people.

Furthermore, youths held to be chronically disruptive typically experience difficulty in most areas necessary for full participating membership in our current society. Broadly categorized, the deficit areas among chronically disruptive youths are: (1) human relationships, (2) educational achievement, and (3) career discontinuity. These facets of our educational and social dilemma should motivate educators to improve academic programs and career education experiences for chronically disruptive youths as well as for all youth. Needless to say, youths with handicaps, such as being chronically disruptive, need special and improved career developmental programs. This author believes that carefully integrated programs must be developed and implemented for such youths. This treatise makes such an attempt. Its goal is to integrate all areas of student development and individual needs into a coordinated whole, a concept referred to as the Integrated Curriculum.

Definition of the Integrated Curriculum

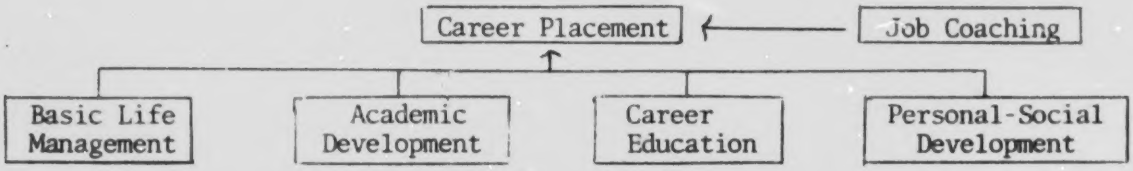
The Integrated Curriculum is exactly what its name implies: an integration of all facets of the development of chronic-disruptive youth deemed important to allow these students to be effective, fully participating members of society. The components of the integrated curriculum are:

1. Basic Life management
2. Personal social development
3. Academic development
4. Career education
5. Career placement involving job coaching

The integration of these components is depicted below in Figure 1.

Figure 1

COMPONENTS OF THE INTEGRATED CURRICULUM

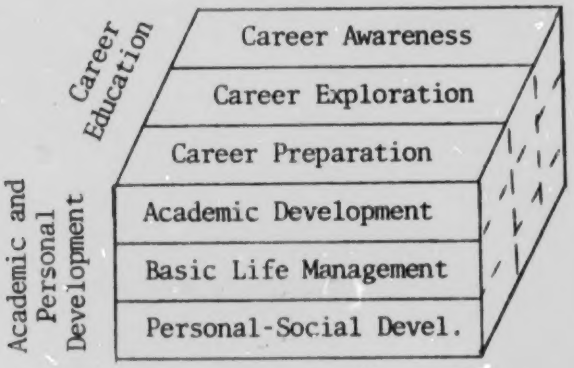


The model above demonstrates the interrelationship of four aspects of the proposed curriculum which occur during residential placement of the student. Further, a fifth and significantly important function will occur when the student is dismissed. This function is the student's job placement; closely associated with the student's placement is the job coach. The responsibilities of the job coach are a direct result of residential center recommendation and individual preference with continual professional assistance.

Figure 2 further clarifies the integrating facets of the proposed program. This figure suggest the over-arching emphasis given to career education/development in integrating. In the Integrated Curriculum attention is given to meshing the three facets of career development with each of the other three major components. The essential point is the contribution each of the lower level components (academic development, basic life management, personal-social development) should provide to the three sub-sections of career education. Career development is achieved through the application of basic knowledge and skills in the areas of (1) academic development, (2) basic life management and (3) personal-social development to the career problem in life. Special learning units on facets of career development must be provided in order to emphasize this facet of a more complete career education program. Consequently, career education is accomplished by an integration within the total student program as well as specialized courses/units emphasizing career development.

Figure 2

THE INTEGRATED CURRICULUM
(Residential Center Emphasis)


Career Education
Career Awareness
Career Exploration
Career Preparation
Academic and Personal Development
Academic Development
Basic Life Management
Personal-Social Devel.

In order to further understand and appreciate the components of the curriculum, as shown in Figure 2, introductory definitions are given below:

Career Education: Career education in a residential setting has three basic activities. These activities are discrete at times, and assumed at other times with the other facets of residential life. The three areas discussed are as follows:

1. Career awareness is defined basically as a cognizance of the world of life careers, including the many occupations in which the career is partially realized.
2. Career exploration: Career exploration, institutionally and for this program, is comprised of work experiences for the dual purposes of (1) self-evaluation and (2) job/work preference, experience, and evaluation.
3. Career preparation: Career preparation is broadly defined as educational preparation for work. Residentially, this involves (1) classroom and community based career education and (2) personal and group counseling regarding readiness for assuming career and work responsibilities.

Later in this treatise the specific objectives for these three broad areas are expressed as eight career goals. These goals simply delineate the above three broad categories.

Academic, basic life management and personal development are functions of student development which typically occur in classroom and counseling activities. A brief explanation of each area is given below:

1. Academic Development: This area of development includes the basic educational skills in the academic areas regarded as necessary to function as an effective person. Emphasis is given to "high-priority" functional learning in six areas (to be listed later).
2. Basic Life Management: This area is concerned with all facets of basic human needs. Special emphasis is placed on both the knowledge of these needs and functional effectiveness in their satisfaction.
3. Personal-Social Development: This area places special emphasis on self, self-awareness, relationships with others, and skill development associated with personal independence in contemporary society.

It is believed that careful and thorough integration of the above components of student development will yield improved societal functioning for the individual, and thereby society in general.

Discussion of Career Education Development

Although the components of career education are discussed in the succeeding section of this chapter, it is necessary here to explore just what career education means. It is especially important to arrive at a clear definition of career education for the purposes of explaining the proposed program in this treatise.

At the outset, remember that chronic-disruptive youth have been particularly unsuccessful in school, and by and large will not return to school upon release from a residential center. Therefore, because these adolescents will attempt to find work rather immediately, career development must be a major focus for them. Secondly, few such youths are well prepared personally, socially, or academically for the world of work. These conditions must be recognized and dealt with in an effort to allow these persons greater personal and societal fulfillment.

Career education is not a new concept. It has been evident throughout our history. However, it has not enjoyed major attention until the recent decade. The movement toward career education has gained impetus by both national and state level commitments. Figure 3 is a chronological table which exhibits the national commitment given to the vocational side of career education since 1960.[4]

It should be noted in Figure 3 that the major force in the career education thrust came about as a result of the 1971 designation by Dr. Marland, then U.S. Commissioner of Education, of career education as being among the highest priorities of his Office. His commitment brought the allocation of funds and resources and aided the development of national interest and exploration in career education.

Career education has been given various definitions. This writer assumes career education to be all inclusive of career (1) awareness, (2) exploration, and (3) vocational experience and placement. The Chamber of Commerce of the United States (1975)[5] summarized career education as follows:

> "... career education is the total effort of education and the community to help all individuals become familiar with the values of a work-oriented society, to integrate such values into their lives in such a way that work becomes possible, meaningful, and satisfying to each individual...."

Career and career education have been outlined and defined for schools, many individuals and groups. The set of definitions adopted by the Texas Education Agency[6] is as follows:

1. The term "career" is often used in a broad sense to include skilled, professional, semi-skilled, paraprofessional, and technical work--the entire complex of the world of work. Whereas,

Figure 3

A CHRONOLOGICAL TABLE OF MAJOR FUNDING AND PROGRAM DIRECTIONS FOR CAREER EDUCATION

Date	National
1960	
1961	
1962	Manpower Development and Training Act
1963	Vocational Education Act of 1963
1964	
1965	Funding ($64 Million over five years) research and development under VEA of '63
1966	
1967	Advisory Council on Vocational Education: principles and components
1968	VEA Amendments; exemplary programs and projects; USOE* job clusters
1969	USOE guidelines
1970	
1971	USOE: $9 million Dr. Marland's speech 4 career ed. models
1972	6 demonstration sites for the CCEM (Comprehensive Career Education Model) ($2 million - funded by USOE)
1973	

*U.S. Office of Education, 1973

2. "Career Education" is defined as coordinated instruction, integrated into the entire curriculum, and designed to assist students in:

   a. understanding both the world of work and attitudes toward it;

   b. understanding the relationships which exist between education and career opportunity;

   c. understanding the economic and social structures of our society and how they influence the ways people support themselves;

   d. making informed decisions concerning how they will earn a living and taking responsibility for making those decisions; and

   e. acquiring marketable skills as preparation for earning a living.

In addition, certain desired characteristics of career education have been identified. By and large most professionals and laypersons agree that Career Education should have the following characteristics:[6]

1. It should consist of coördinated, sequential, and academically cumulative activities.

2. It should be multidisciplinary in nature; it should utilize as far as possible, the existing educational disciplines with emphasis upon goals of students.

3. It should have meaning to the student, the school, and the entire community; the community should be interested, supportive, and involved.

4. It should ensure that students develop a positive attitude towards work and that they respect each person's work through an understanding of the interrelatedness and interdependence of all careers.

5. It should provide an awareness of an adaptability for differences in demands in the labor market and the career world.

6. It should offer students alternate sequences through a flexible educational system that can adjust to the interests, aptitudes, abilities, aspirations, and unique characteristics of each individual.

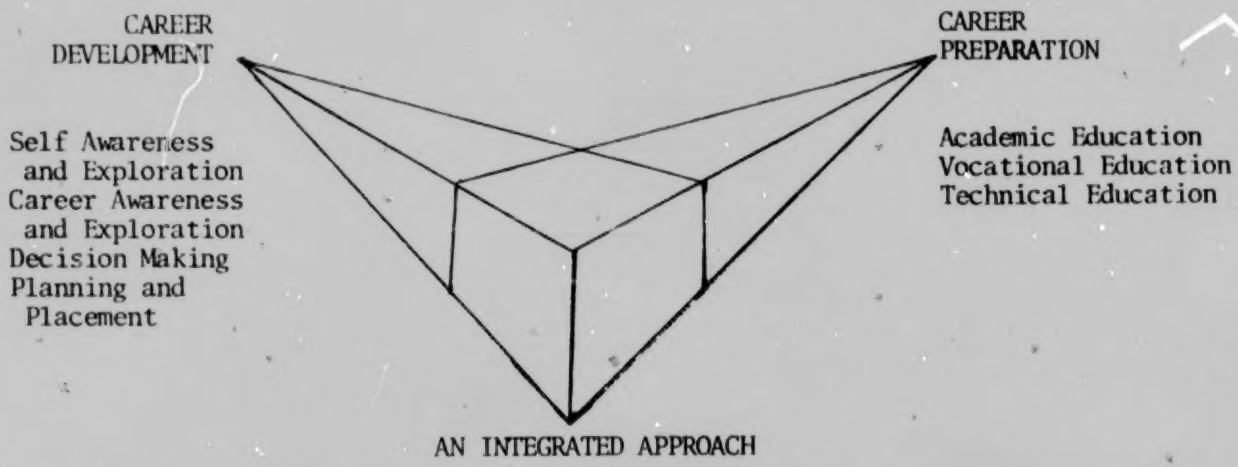
7. It should contribute to students' knowledge of the fundamental concepts and processes of the American economic system and of the opportunities for individual participation and success in the system.

8. It should ensure that all students are prepared to enter the world of work with marketable skills.

To depict this total concept of career education, Figures 4 and 5 are included to convey its gestalt. Figure 4 attempts to display career education as an integrated approach.

Figure 4

CAREER EDUCATION: AN INTEGRATED APPROACH

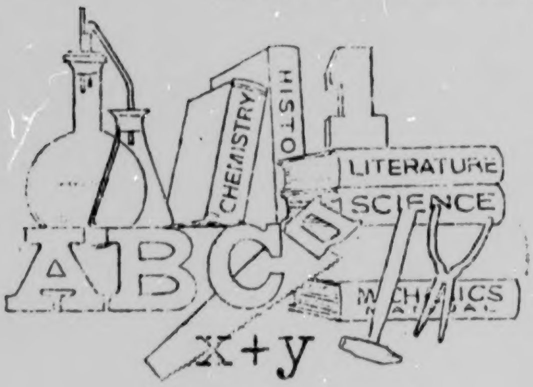

CAREER DEVELOPMENT
Self Awareness and Exploration
Career Awareness and Exploration
Decision Making
Planning and Placement
CAREER PREPARATION
Academic Education
Vocational Education
Technical Education
AN INTEGRATED APPROACH

A REFERENCE GUIDE: GOALS AND PERFORMANCE INDICATORS, Michigan Career Development Program, Michigan Department of Education, 1973.[7]

Figure 5 is an extension of the concept of all-inclusiveness. It is presented to demonstrate total integration of school, people, and jobs. As exhibited previously, career education integrates and reinforces academic as well as other components of education in both theoretical and practical applications. Therefore, career education is an excellent, all-inclusive concept to utilize as the major focus of a curriculum for the chronic disruptive youth for which this program is intended. To further develop the

Figure 5

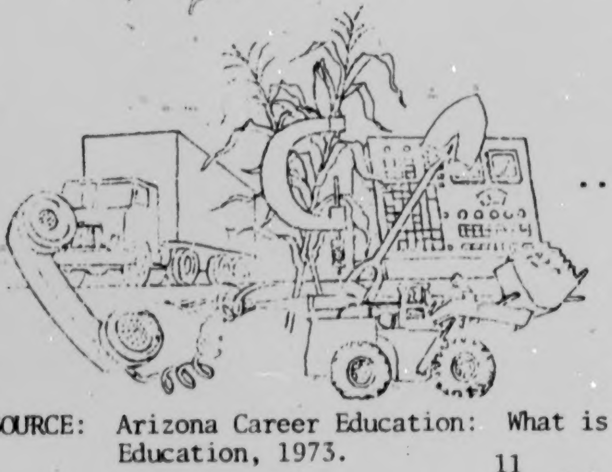
CAREER EDUCATION identifies with . . .


CHEMISTRY
HISTO
LITERATURE
SCIENCE
MECHANICS
ABC
x+y

. . . ALL subjects

. . . ALL people

. . . ALL ages



. . . ALL jobs

SOURCE: Arizona Career Education: What is it? Arizona State Department of Education, 1973.

notion of the comprehensive nature of career education, a basic set of concepts were sought. Such a list of the important concepts of career education are as follows:

Career Education Concepts[6]

1. All work is important.
2. People work for various rewards or satisfactions.
3. Some jobs produce goods; others provide services.
4. Any productive worker should be respected.
5. Many people work to make life better for all.
6. Specialization leads to interdependency.
7. Some jobs are needed everywhere while others may be determined by where one lives, by supply and demand, or by changing conditions.
8. Learning basic school skills--reading, writing, spelling, computation, communication--is necessary for almost all types of jobs.
9. Training is necessary for most jobs; a well-planned school program can provide effective training.
10. Gaining information about many people and many jobs is part of the development process of choosing a career.
11. Understanding oneself is important in developing school skills and choosing a career.
12. Getting along with people is an important part of job success.
13. Leisure time activities affect career choice.
14. Information about abilities, aptitudes and achievement, and acceptance of this information help individuals make more realistic career decisions.
15. Careers are grouped by fields.
16. Positions are related within career fields.
17. Exploratory work experience helps improve knowledge about careers.

SOURCE: A Tentative Framework for Developing Comprehensive K-12 Career Education, Texas Education Agency, Austin, Texas, April, 1972, p. 18.

Because of the need and desire to integrate curriculum for this special group of youth, an all-encompassing concept such as career education has to be used. This notion will be expanded in succeeding sections to posit means of planning and implementing the program.

COMPONENTS AND MAJOR OBJECTIVES OF AN INTEGRATED CURRICULUM FOR CHRONIC-DISRUPTIVE YOUTH

Curriculum is defined herein as a system for the implementation of high priority objectives for total educational development. The target population here are persons adjudged to be chronic-disruptive youth. The notion of an Integrated Curriculum is posited because of the special needs of these students. The previous societal behavior of these students suggests that they need specialized programs in personal, academic and career education. Integration of these elements within the curriculum is essential because these persons have not yet been able to successfully put the pieces of life's puzzle together. Moreover, integration is synonymous with close coordination of all efforts, i.e., personal, academic, and experiential. This notion also implies unified team efforts on the part of all residential personnel.

Considerable study of (1) available research and development of curricula for special students, as well as (2) careful analysis of residential programs (consultation with personnel therein) was undertaken. These two extensive searches suggested certain promising avenues to follow for the development of an integrated curriculum for chronic-disruptive youths. The curriculum components having the most potential for these youths are as follows:

Curriculum Components

1. Basic Life Management
2. Personal-Social Development
3. Academic Development
4. Career Education
5. Career "Job" Coaching

The first four areas exhibit high priority clusters or areas of curriculum development within the institutional setting. A fifth area, "job placement" with "job coaching" (i.e., professional assistance and guidance) outside of the residential center was also deemed important. These five components constitute the priority areas of the integrated curriculum. The four residential facets of the curriculum will be discussed in the following pages.

Components and Objectives of the Integrated Curriculum

The four residential components (Basic Life Management, Personal-Social Development, Academic Development, and Career Education) of the integrated curriculum will be discussed individually hereafter. The approach taken is to delineate the basic "high priority" objectives suggested for the target population. Innumerable curricula and sources were studied and applied in the following pages; however, it should be noted that PROJECT PRICE,[9] a federally funded project at the University of Missouri, had considerable impact on the selection of objectives in the areas of Basic Life Management and Personal-Social Development. A wide variety of sources were used in the academic and career education areas, as well.

I. Basic Life Management

Most youths have had personal experiences with and have studied those facets of personal development which enable them to be effective persons in our society. However, research and observation indicated that chronic disruptive youths are in need of improvement in personal management skills. Therefore, high priority objectives (in terms of utilization in basic occupations) are stated here to guide students and educators in further consideration, study and development.

The basic life management objectives are presented for consideration as mini-units of study and/or topics for individual or small group counseling. Both major objectives and the enabling objectives are stated in the form of competencies. The objectives are as follows:

1. Management of Personal Finances

   The student will be able to:
   1.1 Identify money and make correct change
   1.2 Make wise expenditures
   1.3 Use Bank facilities for
      1.31 Money exchange
      1.32 Bank accounting
      1.33 Saving accounts
      1.34 Safety deposits
      1.35 Credit/loans
   1.4 Maintain financial records
   1.5 Calculate and pay taxes
   1.6 Understand Social Security payments and benefits
   1.7 Understand retirement and fringe benefits
   1.8 Understand purpose and function of insurance programs
   1.9 Understand purpose and function of workman's compensation

2. Selecting, Managing and Maintaining a Home

   The student will be able to:
   2.1 Select adequate housing
   2.2 Maintain a home
   2.3 Use basic appliances and tools
   2.4 Maintain household and household goods

3. Caring for Personal Needs

The student will be able to:
- 3.1 Select appropriate clothing for
    - 3.11 Work situations
    - 3.12 Social situations
    - 3.13 Leisure time activities
- 3.2 Exhibit proper grooming
- 3.3 Understand and exhibit basic hygiene
- 3.4 Demonstrate knowledge of physical fitness
- 3.5 Demonstrate knowledge of good nutrition in
    - 3.51 Eating skills
    - 3.52 Meal planning
    - 3.53 Food purchases
    - 3.54 Food preparation
    - 3.55 Food storage
    - 3.56 Sanitation
- 3.6 Demonstrate knowledge of personal health care
- 3.7 Demonstrate knowledge of health care services

4. Family Life

The student will be able to demonstrate knowledge of:

- 4.1 Sexual relationships
- 4.2 Responsibilities involved in marriage
- 4.3 Responsibilities in child care; especially
    - 4.31 Personal care
    - 4.32 Psychological development
    - 4.33 Intellectual development
    - 4.34 Social development
- 4.4 Family Safety procedures and practice
- 4.5 Family Planning

5. Purchasing and Caring for Clothing

The student will be able to:
- 5.1 Exercise judgment in clothing purchases
- 5.2 Exercise care of clothing in
    - 5.21 Cleanliness
    - 5.22 Storing
    - 5.23 Repairing clothing

6. Engage in Civic Activities

The student will be able to understand:
- 6.1 Basic local government
- 6.2 Basic laws and law enforcement
- 6.3 Basic American government
- 6.4 Personal rights and responsibilities as a citizen
    - 6.41 Due Process
    - 6.42 Legal processes - Rights and Responsibilities
    - 6.43 Municipal services
    - 6.44 Registration and Voting procedures
- 6.5 Selective Service System

7. Utilizing Recreation and Leisure Time

The student will be able to:
7.1 Participate in individual and group activities
7.2 Know activities and available resources
7.3 Understand recreational values
7.4 Use recreational facilities in the community
7.5 Plan activities wisely
7.6 Plan vacations

8. Mobility, Transportation

The student will be able to:
8.1 Demonstrate knowledge of traffic rules and safety practices as
    8.11 Pedestrians
    8.12 Vehicle operator
        8.121 Bicycle
        8.122 Automotive
8.2 Demonstrate knowledge responsibilities of a car in
    8.21 Automotive ownership
    8.22 Automotive purchases
    8.23 Automotive insurance - liabilities
    8.24 Legal aspects
    8.25 Work and leisure
8.3 Demonstrate knowledge and use of various means of transportation, public and private

II. Personal-Social Development

The need for personal-social development has long been recognized as a high priority for every individual. Improved personal-social development enables all persons to feel better about themselves and to relate to others; it also promotes independence. The following priority objectives are to act as a guide to residential personnel and are to be emphasized in the residential programming of chronic-disruptive youth. This high priority area must be approached and emphasized carefully and thoroughly by all staff members. Because of the importance of this area of development in youth, special considerations are explored in the implementation of these basic ideas.

The personal-social objectives are again presented as potential mini-units of instruction. However, close coordination is expected between educators and counselors. The objectives are as follows:

1. Attain a sufficient understanding of one's self

   The student will be able to:
   1.1 Attain a sense of body
   1.2 Identify interests
   1.3 Identify abilities
   1.4 Identify emotions
   1.5 Identify personal needs
   1.6 Understand physical self
      1.61 Physiological development
      1.62 Human sexuality

2. Obtain Positive Self-Confidence, Self-Concept

   The student will be able to:
   2.1 Express feeling of self-worth
   2.2 Understand how others see him/her
   2.3 Accept criticism
   2.4 Develop faith in self

3. Desiring and Achieving Socially Responsible Behavior

   The student will be able to:
   3.1 Understand character traits needed for acceptance by others
   3.2 Exhibit acceptable behavior in public
   3.3 Develop and understand respect for the rights and properties of others
   3.4 Recognize and follow instructions, rules
   3.5 Identify personal roles in many situations
   3.6 Understand cultural and multi-cultural values

4. Choosing, Developing and Maintaining Appropriate Interpersonal Relationships

   The student will be able to:
   4.1 Know how to listen and respond to others
   4.2 Understand how to make and maintain friendships
   4.3 Understand appropriate heterosexual relationships
   4.4 Understand how to establish close relationships

5. Achieving independence

   The student will be able to:
   5.1 Understand the impact of his or her behavior on others
   5.2 Understand the need for self-organization
   5.3 Develop goal seeking behavior
   5.4 Strive toward self-actualization

6. Making Good Decisions, Problem Solving

The student will be able to:
6.1 Differentiate bipolar concepts
6.2 Understand the need for goals
6.3 Consider alternatives
6.4 Anticipate consequences
6.5 Know where to find advice

7. Communicating appropriately with others

The student will be able to:
7.1 Recognize emergency situations
7.2 Understand the need to and be able to read effectively
7.3 Understand and be able to communicate effectively in
    7.31 writing
    7.32 oral speech
7.4 Understand subtleties of mass and/or personal communication

III. Academic Development

The academic portion of the integrated curriculum is both (1) supportive and (2) developmental. This section gives major emphasis to the identification of individual academic development and individualization of instruction. The major components of the academic program are listed below:

Academic Program Components

1. Language Arts, includes:
    1.1 Reading
    1.2 Writing and Spelling
    1.3 Oral Speech
    1.4 Listening
    1.5 Studying Effectively

2. Mathematics

3. Social Studies

4. Science

5. Art, Music, Physical Education, Recreation

6. Driver's Education

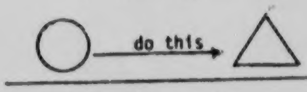
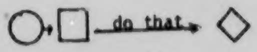
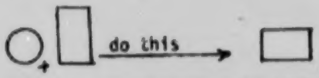
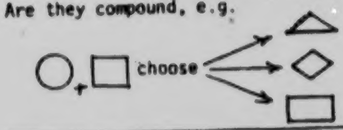
A Saskatchewan identified essential skills for Occupational Education (Smith, 1972).[10] The study (entitled Generic Skills) was initiated... "to effect economics in vocational education and to provide students with skills that will permit them a broader occupational choice." The next several pages are presented to stress the following three points:

1. Students need knowledge of high priority academic skills found in thirty-four (34) basic occupations.
2. Functional student competencies of the most used skills must be ensured.
3. Because skills and needs of students vary markedly, individualized instruction is needed.

The data presented in the Tables on the following pages represent skills found in thirty-four (34) basic occupations. These occupations were primarily blue collar and service roles. The skills sought were of two kinds: (1) generic skills performed on the job and (2) those skills which were required for entry to the job. The data presented also demonstrate the perceptions of workers and supervisors. Emphasis should be placed on each skill and its percent of utilization. Percentages are calculated on a total of 1360 possible responses. When these factors are considered, important decisions can be made regarding basic academic curricula, i.e., which skills are really important and necessary.

Later, a listing of objectives according to curricular areas will be provided. These objectives will be related to the data found by Smith (Generic Skills Study).

The objectives for each component will be outlined below. In addition, special mention is made regarding career education. The author proposes that each academic educator should emphasize utilization of his/her subject area and/or content in various roles in the world of work. Special emphasis

QUESTIONS asked of 340 Workers (W) and their Supervisors (S) Percentage calculated on total of 1360 possible positive responses		SKILL USED				% on 1360
		On Job		On Job Entry		
		W	S	W	S	
A. Do you:	Ever have to list, state or think of possible reasons which might cause certain faults or symptoms	209	194	95	77	42
	Use reference manuals to guide you in selecting the possible reasons	149	150	69	63	31
	Ever have to establish a priority or sequence in which to check the possible reasons	177	167	85	72	36
	Have to personally check to find out which of the possible reasons is the correct one	197	180	97	82	40
	Use reference manuals to guide you in how to check each reason	129	128	60	58	27
B. If you do have to check to find out which of several possible problems is the correct one do you do this by:	Asking probing questions	183	182	99	102	41
	Examining by, smelling, touching, looking at or tasting	206	190	121	101	45
	Using tools or instruments	150	138	88	74	33
C. If you make an error in your diagnosis would it possibly result in:	Loss of life	59	49	34	23	12
	Some danger or hazard	96	87	50	38	19
	Considerable loss of time	92	93	51	48	20
	Some loss of time	126	111	67	64	27
	Considerable financial loss	93	99	44	53	21
	Some financial loss	128	114	73	71	28
10. INSTRUCTIONS A. How complicated are the instructions you follow in carrying out your job:	Are they simple, e.g. If this happens  	331	322	251	256	85
	Are they complex, e. g. If this and this happen  or  	290	276	149	127	61
	Are they compound, e.g.  	262	228	91	66	47
B. In performing your job, how often do you establish your own work priorities:	Usually	217	200	57	43	38
	Sometimes	81	65	77	64	21
	Rarely	19	41	39	40	10
	Never	24	33	117	133	22

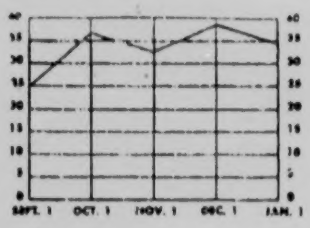
QUESTIONS asked of 340 Workers (W) and their Supervisors (S) Percentage calculated on total of 1360 possible positive responses		SKILL USED				% on 1360
		On Job		On Job Entry		
		W	S	W	S	
6. LISTENING - In your work do you receive oral (word of mouth) information or instructions which requires you to:	Only know the facts or directions	337	336	311	319	95
	Know opinions, purposes or hidden meanings	249	237	131	131	55
7. TALKING Do you talk to people in your work by:	Giving job directions or instructions	282	265	149	151	62
	Giving information	326	312	185	189	74
	Obtaining information by asking questions	329	313	225	238	81
	Giving formal talks	19	40	11	20	06
8. DISCUSSING A. In your work do you:	Debate with your fellow workers or customers to support your point of view, work methods or procedures	310	302	168	158	68
	Debate with your supervisor	321	318	155	143	68
	Take part in formal meetings or conferences which require you to present a point of view	150	167	62	65	32
B. Does your work involve:	Sorting information or objects by a given list. e.g. - sort and file correspondence - sort vouchers by types - sort expenditures or receipts - sort parts or tools	249	264	133	130	57
	Setting up the lists for sorting the information or objects. e. g. - prepare forms to record correspondence, telephone calls, or list of visitors - prepare sub headings or breakdowns for expenditures or receipts - prepare forms to record information you believe others have a need to know - prepare file systems	182	181	84	[illegible]	[illegible]
9. DIAGNOSING Some workers use what are known as diagnostic skills. They examine symptoms (or faults) to determine the problem which causes the symptom. Doctors use these skills to determine the reasons for our aches and pains. Mechanics also use these skills to determine why a car won't start or doesn't run properly. We are trying to find out whether or not you use diagnostic skills and if so which ones. In your work do you:	Ever have to determine the possible reason why something does not work or why mistakes have been made.	238	231	129	110	52

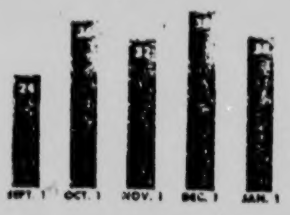
(If this is a negative answer ignore the remaining questions in 9.)

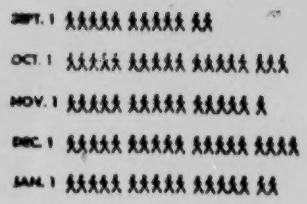
QUESTIONS asked of 340 Workers (W) and their Supervisors (S) Percentage calculated on total of 1360 possible positive responses		SKILL USED				% on 1360
		On Job		On Job Entry		
		W	S	W	S	
COMMUNICATIONS						
4. **READING**						
A. In your work do you read:	Notes, letters or memos	311	316	302	305	90
	Forms such as work orders, job orders, vouchers, claims purchase orders	304	303	224	229	77
	Charts (excluding maps, lists and two column tables)	209	220	134	127	50
	Policy manuals, regulations and instructions	288	289	157	162	65
B. In your work reading:	Do you only determine facts	319	319	268	266	86
	Have to determine opinions, purposes or hidden meanings	216	206	144	135	51
	Have to compare a given selection with a previous one	233	236	122	137	53
C. Do you use information from books such as:	Telephone directory Catalogue Dictionary Technical reference Company manual	303	313	245	253	81
Do you ever use more than one book at a time. e.g. - use a number of catalogues to find the cheapest item - locate information in a library		171	180	80	87	38
Do you compare references from two or more books and set a value or judgment on the one to use		136	148	59	59	29
5. **WRITING**						
A. In your work do you have to:	Write (compose) letters	150	157	149	154	44
	Write (compose) memos	239	243	218	212	67
B. Fill in or complete forms using:	Only short phrases and/or figures	282	279	255	256	78
	Sentences	194	197	179	180	55
	Paragraphs	138	153	132	144	41
C. Prepare reports which:	Show information but no suggestions or recommendations	156	167	73	86	35
	Include recommendations	90	101	32	36	19
D. Prepare reports which require you to:	Decide what information you need to do the job - (You, receive job instructions where you have to decide what information is required to do the job)	88	98	16	19	16
	Decide how to get the information - (You make up your own forms, or charts or procedures to get the information)	74	85	13	13	13
	Analyze the information - (You have to compare information against preset standards to determine which is most important and effective	46	62	9	16	09
	Evaluate the information - (You set the standards for analysis. This may include making lists of advantages and disadvantages of different items)	34	45	14	15	07

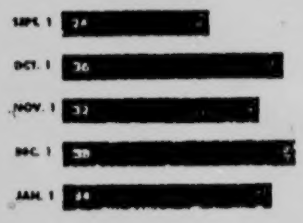
QUESTIONS asked of 340 Workers (W) and their Supervisors (S) Percentage calculated on total of 1360 possible positive responses		SKILL USED				% on 1360
		On Job		On Job Entry		
		W	S	W	S	
2. MEASUREMENT						
A. In your work do you have to estimate any of the following units of measurement:	Time (e.g. how long it will take to do a job)	262	237	155	148	58
	Weight (how much something probably weighs)	152	159	88	95	36
	Distance (inches, feet, yards, miles)	173	169	116	128	43
	Area (square feet, square yards, etc.)	124	122	88	94	31
	Volume (cubic yards, gallons, bushels etc.)	129	140	73	79	30
B. In your work do you have to actually measure:	Time	208	189	156	146	51
	Weight	124	149	103	112	35
	Distance	153	156	119	111	39
	Quantity	190	183	145	144	48
C. In your work do you use any of the following units of measure:	Kilometre, metre, centimetre	46	43	28	26	10
	Kilogram, gram, milligram	27	30	15	16	06
	Kilolitre, litre, millilitre	27	26	16	15	06
D. In your work do you make use of tables to perform the following conversions:	kilometres metres to centimetres miles yards or reverse inches	23	28	12	15	05
	kilograms grams to centigrams pounds or reverse ounces	16	23	7	11	04
	litres millilitres to cubic inches cubic feet quarts or gallons reverse bushels	15	24	9	13	04
E. In your measurements do you read:	Scales such as postage meters, weigh scales, thermometers, etc.	217	219	136	139	52
F. Do you use verniers such as micrometers		90	88	51	57	21

3. GRAPHS









	W	S	W	S	% on 1360
Does your work involve the use of graphs	76	97	46	55	20
Do you record information on graphs	39	49	19	[illegible]	[illegible]
Do you construct (draw) graphs	36	39	16	[illegible]	[illegible]

QUESTIONS asked of 340 Workers (W) and their Supervisors (S) Percentage calculated on total of 1360 possible positive responses		SKILL USED				% on 1360
		On Job		On Job Entry		
		W	S	W	S	
I. **Algebra**	Write problems in algebraic form at the one variable level: two plus a number is 5 2 + X = 5	33	36	30	33	09
	Simplify problems written in algebraic form at the one variable level: 3 (2X + 5) = 3 6X + 15 = 3	29	32	27	30	08
	Solve problems algebraically at the one variable level: Solve this problem by first writing a word sentence showing how the facts and unknown are related, then writing an open sentence and then solving the open sentence. Problem: Bill is 7 years older than his sister. If Bill is 21, how old is his sister?	26	28	22	27	07
	Write, simplify and solve two variable algebraic problems	12	19	9	18	04
	Write, simplify and solve quadratic problems	6	17	6	19	03
	Solve problems involving variations	6	17	6	15	03
J. **Trigonometry**	Use Tables of Logarithms	23	27	24	24	07
	Use a Slide Rule	30	29	16	17	06
	Perform Trigonometric Calculations (specify)	19	26	18	21	06
K. **Geometry**	In your work do you have to identify (recognize) common forms and figures such as circles, triangles, spheres, rectangles, squares, etc.	143	151	135	134	41
	Do you have to draw sketch or form these figures	110	111	89	87	29
	Do you have to read scale drawings such as blueprints	135	125	92	83	31
	Do you have to take measurements from scale drawings	93	95	53	62	22
	Do you have to draw to scale	51	55	32	35	12

QUESTIONS asked of 340 Workers (W) and their Supervisors (S) Percentage calculated on total of 1360 possible positive responses		SKILL USED				% on 1360
		On Job		On Job Entry		
		W	S	W	S	
MATHEMATICS						
1. **USE OF NUMBERS** - In which of the following ways do you use numbers in your work:						
A. **Whole Numbers**	Read	337	340	334	340	99
	Write	335	339	331	339	98
	Count	335	339	332	338	98
	Add or Subtract	323	332	319	330	95
	Multiply or Divide	302	313	299	312	90
	Round Off	290	299	288	296	86
B. **Fractions**	Read	266	249	263	245	75
	Write	263	248	261	244	74
	Add or Subtract	247	231	244	224	69
	Multiply or Divide	238	223	233	216	66
C. **Decimals**	Read	285	277	279	272	81
	Write	280	274	274	269	80
	Add or Subtract	263	261	257	257	76
	Multiply or Divide	250	245	245	238	71
	Round Off	244	244	239	234	70
D. **Per Cent**	Read	243	251	230	243	71
	Write	238	246	225	238	69
	Calculate With	212	225	197	213	62
E. **Equivalents**	Change Fractions to Decimals or Percentages	153	155	140	145	43
	Change Decimals or Percentages to Fractions	154	153	140	142	43
	Change Decimals to Percentages or Percentages to Decimals	147	150	135	140	42
F. **Solve Problems in Word Forms**	In your work do you ever have to do more than one of these calculations at a time and decide the order in which they are done.	189	189	163	168	52
G. **Ratio and Proportion**	Do you use ratio to show comparisons between two numbers. Example: gas oil mix 16:1, or compression ratio 8:1.	194	179	139	131	47
	Do you use proportion to solve problems like 4:6 = 3:( ). For example 4 gallons of gas requires 40 oz. of oil. How much oil would be needed for 3 gallons. $\frac{4}{40} = \frac{3}{(\ )}$	143	147	101	110	36
H. **Areas Perimeters and Volumes**	Does your work involve the calculation of:					
	Areas	118	110	106	93	31
	Perimeters	105	100	91	84	27
	Volumes (specify)	122	115	98	94	31

should also be given to uses of the subject area regarding future success in assuming adult responsibilities. Therefore, academic educators should emphasize fundamental skill development and their utility in careers and jobs.

A listing follows of the high priority objectives for the academic curriculum by subject area. It should be noted that the objectives emphasize high priority, basic, functional academic skills and knowledge. Continual emphasis is placed upon competencies exhibited by the student. The areas of the academic curriculum are: Language Arts, Mathematics, Social Studies, Science, the Arts, and Driver's Education. The objectives by areas are as follows:

1.0 Language Arts: Language Arts is inclusive of reading, writing, speaking, listening, and related study skills. The objectives are:

1.1 Reading, read and interpret written communication
The student will be able to:
- 1.11 Identify letters and sounds
- 1.12 Identify word forms
    - 1.1021 Use root words
    - 1.1022 Use prefixes and suffixes
    - 1.1023 Use synonyms, antonyms, homonyms
- 1.13 Read and follow directions
- 1.14 Identify main ideas
- 1.15 Derive word meaning from context
- 1.16 Distinguish fact from opinion
- 1.17 Read with comprehension
- 1.18 Skim for main ideas
- 1.19 Scan to locate information/data
- 1.110 Read to prepare reports
- 1.111 Read efficiently graphs, charts, tables, etc.
- 1.112 Relate reading to personal experience
- 1.113 Identify writing styles for themes
    - 1.1131 Entertain
    - 1.1132 Persuade
    - 1.1133 Inform
    - 1.1134 Bias vs. Evidence
- 1.114 Read and analyze reports
    - 1.1141 General
    - 1.1142 Technical, i.e., income tax
    - 1.1143 Reviews

1.2 Written communication
The student will be able to:
  1.21 Write legibly
  1.22 Identify and write sentences
  1.23 Use language correctly
  1.24 Capitalize and punctuate correctly
  1.25 Organize sentences into paragraphs
  1.26 Develop sentence variety - length, order, kind
  1.27 Use appropriate word choices
  1.28 Write simple directions and explanations
  1.29 Apply rules of syllabication
  1.210 Complete forms
  1.211 Write resumes and summaries
  1.212 Write letters - applications, claims, complaints, inquiries
  1.213 Write a report
  1.214 Prepare a written argument - pro and con
  1.215 Spell functionally in writing

1.3 Oral Communication
The student will be able to:
  1.31 Use voice, gestures and eye contact effectively
  1.32 Participate in general conversation
  1.33 Participate in group discussion
  1.34 Ask questions for clarification
  1.35 Make announcements
  1.36 Give explanations
  1.37 Give brief reports
  1.38 Participate in an interview

1.4 Listening
The student will be able to:
  1.41 Listen to and follow directions
  1.42 Use listening behaviors - eye contact, body posture, verbal patterns
  1.43 Listen to complete ideas
  1.44 Identify main ideas
  1.45 Identify speaker's purposes
  1.46 Extract information by listening
  1.47 Consider effects of listening
  1.48 Consider other's point of view - consider change
  1.49 Identify bias
  1.410 Relate information to personal situation

1.5 Use Material to Study Effectively
The student will be able to:
  1.51 Use dictionary and thesaurus effectively
  1.52 Use index and table of contents
  1.53 Use library card catalog, resources
  1.54 Use encyclopedia and other reference texts
  1.55 Use media resources
  1.56 Use audio-visual aids, resources
  1.57 Locate sources of information

2.0 Mathematics: The following objectives are directed towards utilizing basic mathematics effectively:

2.1 Solve problems using basic mathematics functions
The student will be able to:
2.11 Identify, read and write whole numbers
2.12 Understand place value
2.13 Round off numbers
2.14 Add and subtract sets of numbers
2.15 Solve problems using addition and subtraction
2.16 Multiply and divide pairs of numbers
2.17 Solve problems using multiplication and division
2.18 Estimate answers
2.19 Factor whole numbers

2.2 Solve problems using basic functions with fractions
The student will be able to:
2.21 Read and write fractions
2.22 Write equivalent fractions
2.23 Add and subtract fractions
2.24 Multiply and divide fractions
2.25 Solve problems using basic functions with fractions

2.3 Solve problems using ratios and proportion
The student will be able to:
2.31 Define and write ratios
2.32 Define and write proportions
2.33 Solve problems in either ratio or proportion

2.4 Solve problems using decimals
The student will be able to:
2.41 Identify, read and write decimals
2.42 Round off decimals
2.43 Change decimals to fractions/fractions to decimals
2.44 Add and subtract decimals
2.45 Multiply and divide with decimals
2.46 Solve basic problems using all basic functions with decimals

2.5 Solve problems using percent
The student will be able to:
2.51 Identify, read and write percentages
2.52 Calculate percentage and solve typical problems
2.53 Change: Fraction to decimal
Decimal to percent
2.54 Solve problems with percent

2.6 Solve problems using time, distance, weight, area and volume
The student will be able to:
2.61 Identify, read and write units of time
2.62 Identify units of length
2.63 Solve problems using basic functions with units of length
2.64 Identify and solve problems using units of area
2.65 Identify and solve problems using units of volume and capacity
2.66 Identify and solve problems using units of weight
2.67 Learn the metric system

2.7 Solve problems using Geometry
The student will be able to:
2.71 Identify and draw lines and plane figures
2.72 Identify three dimensional objects
2.73 Identify and measure angles
2.74 Perform constructions
  2.7401 Bisect lines
  2.7402 Perpendiculars
  2.7403 Bisect angles
  2.7404 Equivalent angles

2.8 Solve problems using tables and graphs
The student will be able to:
2.81 Read and draw simple graphs
  2.8101 Line
  2.8102 Bar
  2.8203 Circle

2.82 Read and construct table with data

2.9 Solve basic business problems
The student will be able to:
2.91 Understand currency
2.92 Solve problems involving borrowing money
2.93 Solve problems involving mark-up, margin, profit and loss
2.94 Solve problems involving list price and discount
2.95 Solve problems involving commission
2.96 Solve problems involving personal finance - see also management of personal finances

3.0 Social Studies: The social studies may be coordinated with units of study in each of the other areas. However, basic study of certain objectives should occur:

3.1 Study of communities and characteristics
The student will be able to:
3.11 Understand community structure
3.12 Understand state organization
3.13 Understand Federal Government organization
3.14 Understand the basic needs of all people
3.15 Understand the need for laws and citizenship

3.16 Understand the need for Public Services
3.17 Understand the economic structures of our society
3.18 Understand and locate sources of consumer information
3.19 Understand the purpose, structure, operation, and responsibilities necessary to participate as a productive citizen
3.110 Utilize maps and globes to read and locate information data, geography, topography, etc.

3.2 Review of basic disciplines of study in the social sciences
The student will be able to:
3.21 Understand the basic social science disciplines
3.22 Understand an overview of American History

4.0 Science/Health: The student should be exposed to basic areas of Science and Health.

4.1 General Science
The student will be able to:
4.11 Understand basic body function and structure
4.12 Apply first aid
4.13 Understand common illness
4.14 Understand effects of drugs, alcohol, narcotics on body
4.15 Apply principle of heat/cold to life situations
4.16 Apply principle of mechanics to life situations
4.17 Understand principles of electricity/make repairs
4.18 Understand problems of environment
4.19 Solve problems using scientific procedures and methods
4.110 Gather, analyze, and interpret information to seek answers to problems
4.111 Understand weather and climate

4.2 Physics, Chemistry
The student will be able to:
4.21 Identify and measure heat and temperature
4.22 Understand reflection and refraction
4.23 Understand speed and sound
4.24 Use and understand measurement
4.25 Define and measure force and energy
4.26 Define and understand work and mechanical advantage
4.27 Identify friction
4.28 Understand basic machines and their functions
4.29 Understand principles of electricity
4.210 Understand basic forms of matter
4.211 Relate and apply chemistry to food compounds
4.212 Relate and apply chemistry to fuels/lubricants

4.3 Biology
The student will be able to:
4.31 Identify life processes of organisms
4.32 Understand and describe life processes of people
4.33 Understand structure and function of simple plants and animals
4.34 Explain relationship between organisms and their physical environments
4.35 Identify food dependency and relationships
4.36 Understand problems of ecology and environment
4.37 Understand basic genetics

5.0 The Arts - Art, Music, Physical Education, Recreation
The student will be able to:
5.1 Understand and appreciate music as an art form
5.2 Understand art for its basic and aesthetic values
5.3 Understand the need for physical fitness of self
5.4 Engage in the arts for pleasure at will
5.5 Develop interest in the arts
5.6 Develop recreation interests and aptitudes

6.0 Driver's Education
The student will be able to:
6.1 Read and understand traffic laws and regulations
6.2 Understand basic automotive mechanics
6.3 Operate an automotive vehicle safely
6.4 Develop understanding of vehicular traffic and transportation

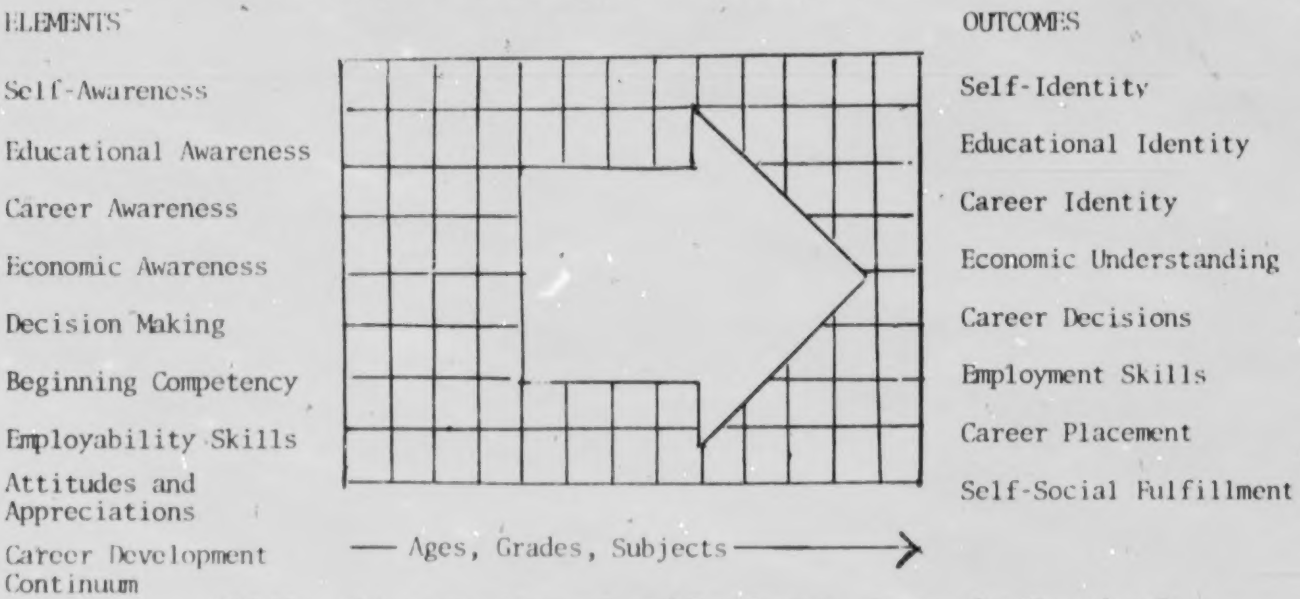
IV. Career Education

Career education is a central focus of the integrated curriculum. In fact, it could be said to be the core. This program suggests that the components of career education are the integrating, interdisciplinary, coordinating experiences for youths in correctional residential centers, i.e., those experiences found in each of the four components of the curriculum: Basic Life Management, Personal-Social Development, Academic Development, as well as Career Education.

Many educators have found career emphasis in teaching to be a strong motivating factor and to act as a useful demonstration of life-long purposes and uses of basic education concepts and skills. Figure 6 demonstrates the potential of identifying and emphasizing career education throughout an individual's educational experience. This model demonstrates emphasis on utilizing career education "elements" (concepts) throughout the curriculum to achieve long-term student "outcomes."

Figure 6

COMPREHENSIVE CAREER EDUCATION MODEL MATRIX


ELEMENTS
Self-Awareness
Educational Awareness
Career Awareness
Economic Awareness
Decision Making
Beginning Competency
Employability Skills
Attitudes and Appreciations
Career Development Continuum
OUTCOMES
Self-Identity
Educational Identity
Career Identity
Economic Understanding
Career Decisions
Employment Skills
Career Placement
Self-Social Fulfillment
— Ages, Grades, Subjects →

SOURCE: Ohio State Research and Development Center for Vocational and Technical Education, 1971, R & D Report, Vol. 2, No. 1.[11]

The outcomes for the career education component are that each student develops competencies necessary for (1) a satisfying personal life, (2) making a living and (3) being a contributing member of society.

The program suggested herein will hold to the model developed at Ohio State University (1971).[11] This model exhibits eight themes which have basic elements (concepts) with attendant outcomes. For purposes of clarity, the eight basic elements are exhibited below in Figure 7, with definitions and expected outcomes:

Figure 7

Eight Basic Elements and Expected Outcomes of Career Education

Elements	Outcomes
SELF-AWARENESS Awareness of the components that make up Self.	SELF-IDENTITY Being aware of own individual characteristics which make up his self, including a consistent value system.
EDUCATIONAL AWARENESS Awareness of the connection between education (in and out of school) and life roles and goals.	EDUCATIONAL IDENTITY Ability to make educational plans for advancing career goals.
CAREER AWARENESS Awareness of the world of life careers, including occupational careers.	CAREER IDENTITY Establishment of priorities and roles for life careers.
ECONOMIC AWARENESS Awareness of the functions of production, distribution, and consumption in relation to the individual and society.	ECONOMIC UNDERSTANDINGS Analyzing and resolving problems concerning the economic environment in which he lives.

Continuation of Figure 7

DECISION MAKING Applying information and values to the process of making rational decisions.	CAREER DECISIONS Setting a career direction with plans for accomplishing career goals.
BEGINNING COMPETENCY Development of cognitive and psychomotor skills needed for job performance.	EMPLOYMENT SKILLS Competence in the performance of career-related skills.
EMPLOYABILITY SKILLS Social skills and communication skills appropriate to occupational career placement.	CAREER PLACEMENT Ability to use skills in a career situation.
ATTITUDES AND APPRECIATIONS Feelings for role relationships of self and others in a societal and occupational context.	SELF-SOCIAL FULFILLMENT Active and satisfying role in occupational society.

It is strongly suggested that units of study be developed by (career education) educators around these above elements and outcomes. Great care needs to be taken to coordinate activities with other academic personnel so as to reduce over-lap and to increase effectiveness of the experiences for the students.

A listing of the objectives for the eight elements from the Ohio State Model (Figure 6) is given on the following pages. The objectives were taken from the Ohio State Model (1971) and the State of Florida Manual (1974).[12] Note that many objectives in certain categories are stated in the other three facets of the program. Objectives are stated here for thoroughness and clarity; suggested major and supporting personnel will be listed later in overlapping areas of the curriculum.

Each of the Career Education topics and suggested objectives are briefly defined below:

1.0 Self Awareness: Self awareness refers to the knowledge of self that enables an individual to make career decisions. The objectives relating to self awareness are as follows:
The student will be able to:
- 1.1 Relate one's interests, aptitudes and achievement to realizations of one's career aspirations
- 1.2 Use and understand the concept "role"
- 1.3 Understand and accept uniqueness of self, and past and future changes
- 1.4 Understand environmental forces which influence one's development
- 1.5 Understand relationship of self to values
- 1.6 Understand the importance of self-goals based on self-knowledge

2.0 Educational Awareness: Educational awareness refers to the perception of the relationship of one's careers and life roles. The objectives relating to educational awareness are:
The student will be able to:
- 2.1 Understand that learning occurs in and out of school
- 2.2 Recognize education (academic) as a part of total career education
- 2.3 Recognize that different careers need different kinds of educational preparation
- 2.4 Recognize education as a primary means of achieving life goals

3.0 Career Awareness: Career awareness refers to the understanding of the characteristics of the World of Work that determines one's life career decisions. The objectives relating to career awareness are:
The student will be able to:
- 3.1 Understand the variety and complexity of careers in the World of Work
- 3.2 Understand the relationship of careers to social goals, functions and needs
- 3.3 Identify the characteristics of the preparations for various careers
- 3.4 Understand that "career" involves progressive stages of preparation
- 3.5 Understand the relationship of one's career to one's life style

4.0 Economic Awareness: Economic awareness refers to the perception of the relationship of the economic processes in the environment to one's life career decisions. The objectives relating to economic awareness are:
The student will be able to:
- 4.1 Relate one's career roles to one's life style and personal economics
- 4.2 Recognize the social and economic benefits of careers
- 4.3 Recognize non-occupational means of acquiring wealth
- 4.4 Relate personal economic status to social economy

5.0 Decision Making: Decision making refers to the skill of applying one's knowledge to a rational process of career choice. The objectives relating to decision making are:
The student will be able to:
5.1 Relate career goals to the process of making career decisions
5.2 Identify, gather and apply information
5.3 Identify and select alternatives, and use them in making decisions

6.0 Beginning Competence and Skill Awareness: This refers to both awareness and acquisition of the skills necessary in the performance of tasks relating to one's career. The objectives relating to this topic are:
The student will be able to:
6.1 Identify objectives, specify resources, outline steps of action, perform the steps and evaluate the action
6.2 Identify tools required for tasks of industry and commerce
6.3 Identify the interpersonal relationships involved in various career roles
6.4 Perform entry level tasks
6.5 Acquire in-depth skills for entry into relevant occupations

7.0 Employability Skills: This refers to the social and communication skills appropriate to career placement. The objectives relating to employability skills are:
The student will be able to:
7.1 Understand the implications of working in independent, team, and supervised situations
7.2 Relate one's interest and aptitude information to occupations
7.3 Demonstrate work habits and attitudes necessary for entering occupations of one's interest
7.4 Demonstrate skills to seek and secure a job

8.0 Attitudes and Appreciation: This refers to one's feelings toward the social and economic environment in relation to one's life roles. The objectives relating to this topic are:
The student will be able to:
8.1 Recognize one's responsibilities involved in accepting a job/task.
8.2 Recognize differences in the environment and exhibit the ability to be tolerant and flexible.

In summary, the career education component is an excellent focal point for the integration of curriculum. Education, in its totality, is a process of integrating and synthesizing knowledge, skills, experiences, and personal-social development. Like education, career education is also a developmental process, and it may be used as a vehicle to implement curriculum for residential youths. Samuel Osipow (1973)[13] has spoken about the process of career development. His point of view provides an excellent summary for this portion of the curriculum. He said:

> "...we now know the following about the career development process:
>
> 1. We can say that career development takes place in a social setting, and is defined, to a great degree, by the characteristics and conditions of the society and culture in which it takes place.
>
> 2. Career development is a process which is influenced by changes both within the individual, and in the environment of which the individual is a part.
>
> 3. With the tremendous emphasis which is given to productive labor, and occupations within our society, the career development process can produce anxiety in making career decisions. Dissatisfactions and unhappiness can result if the decisions are based upon misinformation, or insufficient information.
>
> 4. Abilities seem to play a more important role in career placement than career interests. Although a person's interests may provide direction, any long-term involvement in a career is usually based on the person's abilities.
>
> 5. The idea that an individual's characteristics indicate one, and only one occupation for which that person is suited is outdated and inaccurate. Studies indicate that the great majority of people can use their talents and skills in a variety of occupational settings.
>
> In addition, we can say that:
>
> 6. In our rapidly changing world, the idea that most persons will choose an occupation or career for an entire lifetime is outdated. Because we all go through a process of continually changing interests and adapting to changes around us, career development must be considered a lifelong process, not limited to late adolescence. Also, since career development is part of the broader process of human development, it begins in early childhood, long before the adolescent years.

CURRICULUM PLANNING, DEFINITION OF ROLES AND IMPLEMENTATION OF PROGRAMS

This section is divided into two main segments. The first part deals with recommended teaching strategies, while part two addresses the topic of personnel roles and functions.

Recommended Teaching Strategies

The integrated curriculum is unique. It focuses on three factors of education: (1) content, (2) process and (3) individualization. These factors are described as follows:

(1) Content is emphasized on a high priority, "need to know" basis,

(2) Process is emphasized as both a means of (a) learning, as well as (b) priority abilities and problem solving skills, and

(3) Individualization is mandatory because it is a strategy for both teaching and learning.

Much more needs to be said regarding the way in which the above three factors relate to the integrated curriculum for the chronic-disruptive youth. Initially, content is always important to a greater or lesser degree. The content of this curriculum is evident in most educational settings; however, in this case primary emphasis is on basic, "need to know" skills. All of the skills presented, when learned at competency level, will provide the learner with skills at a level such that he/she will be able to function quite effectively. A person possessing these skills should be able to pass the Test of General Educational Development at any time. Further, it is important to note that the skill level is not directed much beyond that particular point of academic development.

Secondly, process is important both as a skill and as content. Learning and practicing the process of solving problems of all types is invaluable to the student, provided this "practicing" is done on a personal level. This notion of problem-solving is a skill process. However, the processes involved in the content area of reading, for example, are also very important, and should not be overlooked. Thirdly, individualization is required because of the varied entrance levels and schedules of the students, interests of the students, and exit time tables. The remainder of this section deals with these three variables of teaching in greater detail--content, process and individualization.

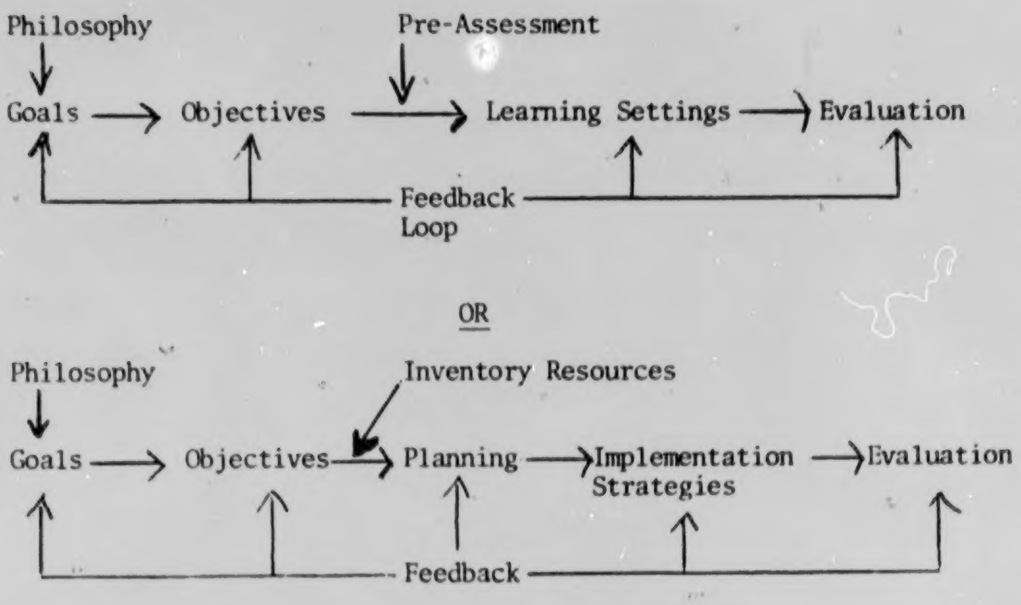
Content: The content of this curriculum is based on practical life situations. It is founded on research and knowledge of what is basic to functional citizenship. Teachers and counselors are urged to approach each of the objectives in a practical manner, exercising daily utilization and emphasis.

Process and Individualization: These concepts are intertwined in instruction and learning. The author proposes the following strategy of teaching which creates this bond:

> Suggested Methodology: Initially, goals and objectives are highly important. It is mandatory to know where one is going. Once this is established, many avenues of accomplishing these goals are revealed. The author subscribes to the widely known and accepted General Model of Instruction. This model is exhibited in Figure 8 and described briefly thereafter:

FIGURE 8

GENERAL MODEL OF INSTRUCTION[14]


Philosophy
Pre-Assessment
Goals
Objectives
Learning Settings
Evaluation
Feedback Loop
OR
Philosophy
Inventory Resources
Goals
Objectives
Planning
Implementation Strategies
Evaluation
Feedback

The two models above are intimately related; the second is just slightly more elaborate than the first. The first model demonstrates that goals must be determined as broad statements reflecting the overall philosophy of the curriculum. From these broad goals, more specific objectives (statements enabling goal achievement) can be operationally stated. In other words, once objectives are known, planning and learning is designed so as to accomplish the stated objectives. Because knowledge of results is important, an evaluation is essential. The nature of evaluation is determined by the nature of the objectives (i.e., cognitive, physical, etc).

The feedback loop implies reassessment and continual improvement, and emphasizes that this entire process is circular and on-going. This aspect of feedback caused the author to state the curricular objectives given previously in terms of competencies. A competency is an acceptable level of performance. This level should be known at the outset, for both instructor and learner, because it guides both teaching and learning. In this program, a student is evaluated in terms of whether or not he or she succeeds in attaining the specified level of competence. If he or she does, the feedback apparatus gives the imput that the learner was successful in meeting the objective, and therefore the original goals, objectives, and learning settings were realistic. If the student is not successful, each part of the general model needs to be reviewed to discover why the student failed to attain the specified level of competence.

At this juncture, the instructor(s) is reminded of the direct relationship between unit or module or learning package development and the intimate relationship of planning for instruction and the overall curriculum design. Close attention should be given to planning for instruction and curriculum design. Figures 9 and 10 are presented to exhibit these relationships. Special note should be given to the overall residential plan.

Figure 9 is an attempt to depict the interrelationships of (1) curriculum design and (2) teaching (implementation) and learning. Figure 9 The Integrated Curriculum, and its philosophy is shown on the next page.

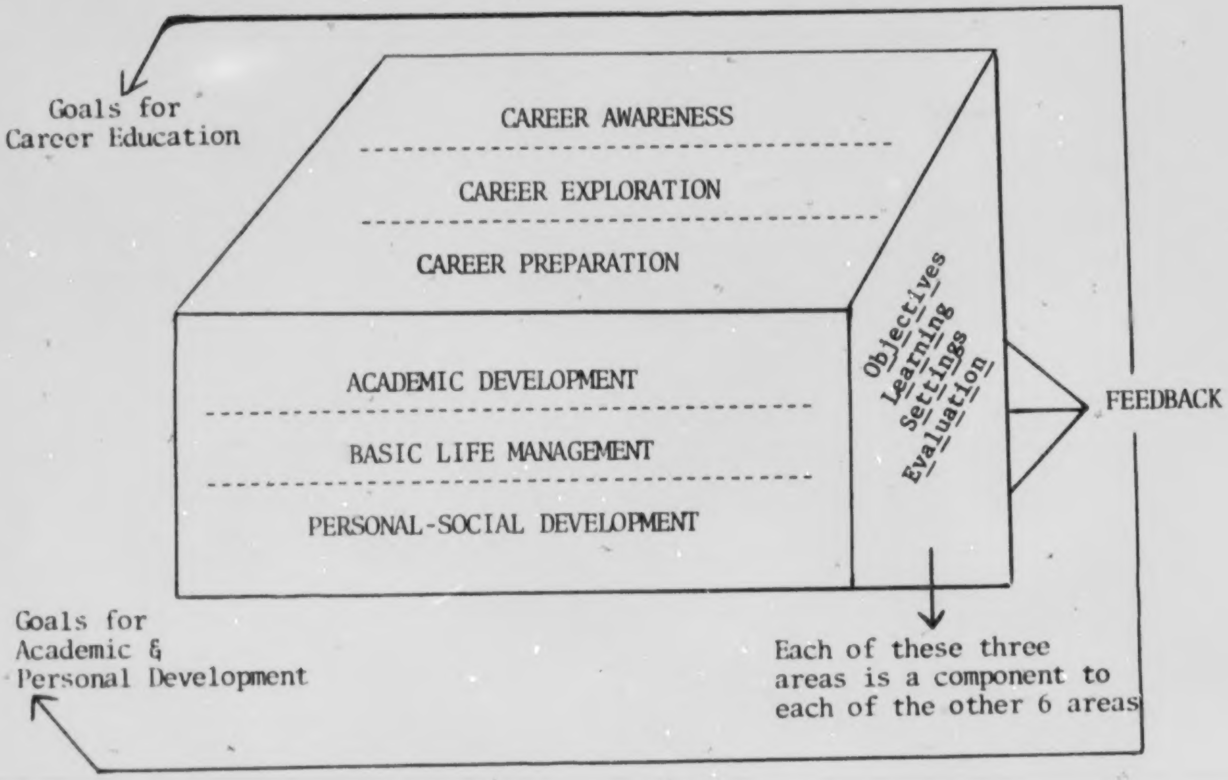

Goals for Career Education
CAREER AWARENESS
CAREER EXPLORATION
CAREER PREPARATION
ACADEMIC DEVELOPMENT
BASIC LIFE MANAGEMENT
PERSONAL-SOCIAL DEVELOPMENT
Objectives
Learning
Settings
Evaluation
FEEDBACK
Each of these three areas is a component to each of the other 6 areas
Goals for Academic & Personal Development

Figure 9

THE INTEGRATED CURRICULUM (PHILOSOPHY)

Figure 10 depicts the interrelated aspects of the (1) residential plan, (2) over implementation of the integrated curriculum, and (3) the implementation of the teaching-learning settings. Figure 10 is also a bringing together of the several aspects of the total plan - The Integrated Curriculum.

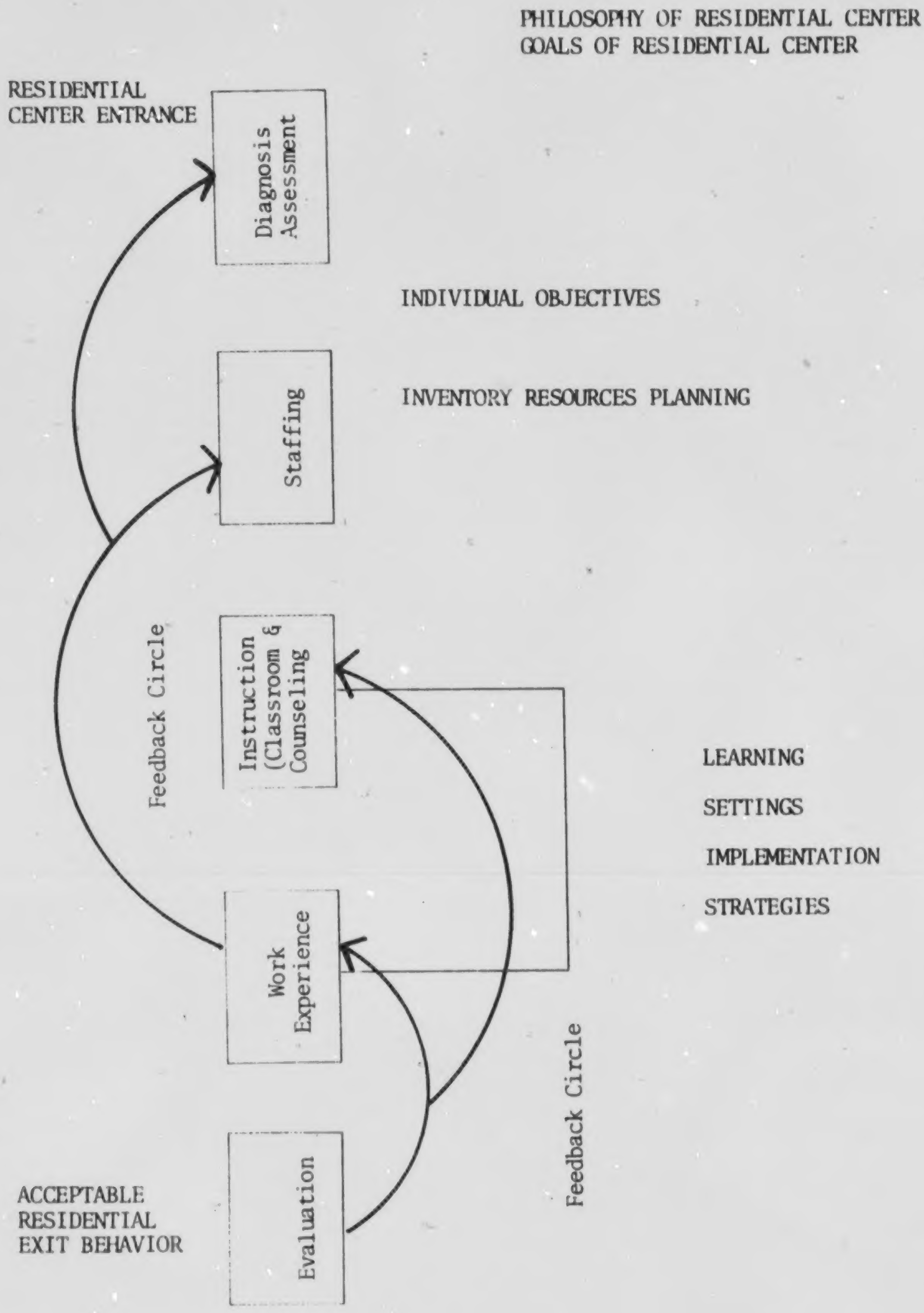

PHILOSOPHY OF RESIDENTIAL CENTER
GOALS OF RESIDENTIAL CENTER
RESIDENTIAL CENTER ENTRANCE
Diagnosis Assessment
INDIVIDUAL OBJECTIVES
Staffing
INVENTORY RESOURCES PLANNING
Feedback Circle
Instruction (Classroom & Counseling
LEARNING
SETTINGS
IMPLEMENTATION
STRATEGIES
Work Experience
Feedback Circle
ACCEPTABLE RESIDENTIAL EXIT BEHAVIOR
Evaluation

Figure 10

This general model of instruction has guided the author to recommend other planning strategies for the instructor(s). These suggestions are as follows:

Suggested Instructional Planning Strategies

1. Learning packages and/or clusters
2. Behavioral statements of objectives
3. Practical teaching strategies such as:
    a. Curriculum pre-planning
    b. Lesson planning
    c. Integrated lesson(s) and multiple resource utilization
    d. Contract learning options
    e. Media - teaching options

Each of the above are discussed on the following pages and ideas and suggestions for each strategy are given:

1. Learning Packages and/or clusters: Learning packages are considered as sets of closely related behaviorally stated objectives (clusters) with recommended learning activities, usually involving multi-activities and/or multi-media; an evaluation follows each cluster. Most learning packages implement the General Model of Instruction discussed previously. Therefore, most lessons follow the outline listed below.

    1. Define Goals (end product(s), skill(s), etc.)
    2. Define and Cluster Objectives
    3. Prepare Learning Activities and/or Settings
    4. Prepare Individualized Activities
    5. Prepare Evaluation System(s) and/or Activities
    6. Review Total Learning related to Objectives (feedback)
    7. Consider Alternative Activities where needed or go on to next lesson.

    Note: Some instructors prepare a pre-test or competency examination or situation and administer this prior to instruction. This assists in individualizing instruction.

An example of a learning package is the teaching of certain concepts related to career fields; in this instance, the cluster concept is strongly recommended. This involves a series of lessons about career fields, each lesson or cluster emphasizing a particular career field. Examples of clusters of this type are given below:

USOE Occupational Clusters[15]

1. Agri-business and natural resources occupations
   Examples: Forestry, land and water management, fisheries and wildlife, mining and quarrying, petroleum and related products.

2. Business and office occupations
   Examples: Secretary, stenographer, general office clerk, office machine operator, office manager and office supervisor

3. Communications and media occupations
   Examples: Publishing, photographic reproduction, broadcasting, telephone and telegraph.

4. Consumer, homemaking and related occupations
   Examples: Food service industry, clothing, apparel and textile industry; child care, guidance and teaching; household maintenance services; family and community services and housing design.

5. Construction occupations
   Examples: Contracting, interior designing, grounds maintenance, fabrication and installation

6. Environment occupations
   Examples: Soil and mineral conservation and control; space and atmospheric monitoring and control; air pollution abatement and control; environmental health services, ornamental horticulture; noise abatement and control; and forest range, and wildlife conservation and control.

7. Fine arts and humanities occupations
   Examples: Performing arts and design, performing arts production and creative writing.

8. Health occupations
   Examples: Medical library, science, health maintenance, pediatric care and services, mental health maintenance and medical care.

9. Hospitality and recreation occupations
   Examples: Recreational planning, tourism and recreation promotion, group travel services and leisure consumerism programs.

10. Manufacturing occupations
Examples: Model development, foundry operations, machine operations, material handling and recycling operations.

11. Marine science occupations
Examples: Marine animal (zoological) research, boat and vessel operation and shipboard product sorting.

12. Marketing and distribution occupations
Examples: Wholesale trade, direct selling, exporting, retail trade, purchasing, shipping and delivery.

13. Personal service occupations
Examples: Massage and related services- analyzing and counseling on weight problems, hair styling and mortuary services.

14. Public service occupations
Examples: Coordinating public housing; handling birth, marriage and death records; customs inspection and law enforcement.

15. Transportation occupations
Examples: Vehicle operation, freight service, commercial aviator and marine piloting.

Source: Vocational Education and Occupations. U.S. Department of Health, Education, and Welfare, Washington: U.S. Government Printing Office, 1969.

A suggested resource for implementing the USOE Occupational Clusters was developed by Sutherland Learning Associates.[16] They have prepared a series of films that explore a number of concepts related to careers and career education. The films and the concepts with which they deal are broken down into occupational careers, and are listed below:

FILMS	CONCEPTS
THE KINGDOM OF COULD BE YOU	People do many different things to get what they need and want.
	Everyone does some things better than others do.
	People do many different things that help other people.
	People make many different things that help other people.

FILMS	CONCEPTS
AGRIBUSINESS	Farming is about growing plants and raising animals.
	Agribusiness is one way of helping people and making things.
	Many different people are involved in agribusiness and they produce many different kinds of things.
	Many products can be made from the plants that farmers grow and the animals that farmers raise.
BUSINESS AND OFFICE	People who are in businesses and offices help plan, organize, and support what other people do.
	Business and office activities are one way of helping other people.
	Many people are involved in business and office work, and they use many specialized pieces of machinery and equipment.
	Other kinds of activities depend on the business done in offices.
COMMUNICATION	Communication is the way by which we exchange ideas and information.
	There are many different ways of communicating, and all people are involved in communication.
	Communication helps us to learn about each other and about the world around us.
	Communication is one way that people help other people.
CONSUMER - HOMEMAKING	Consumer-homemaking activities are one way of helping other people.
	Many people are involved in consumer-homemaking activities.
	There are people outside the home who do the same things that are often done by members of the family inside the home.

FILMS	CONCEPTS
CONSUMER - HOMEMAKING (cont'd)	Homemaking helps family members have more fun together by helping each other.
	Consumer-homemaking involves caring for other people.
ENVIRONMENT	A clean environment helps keep people healthier and happier.
	There are many people who work all the time at keeping the environment clean and safe, but they need the help and efforts of everyone.
	The environment belongs to everyone and is enjoyed by everyone, and everybody must do his share to keep it clean.
	Keeping the environment clean is one way people help other people.
FINE ARTS AND HUMANITIES	People in fine arts and humanities help others to feel things and to be more aware.
	Fine arts and humanities activities are one way of helping people and of making special things.
	Fine arts may include music, painting, writing, dancing, acting, singing, and playing music.
	There are many different ways of seeing and representing things in the fine arts. There is no single right way of expressing feelings and ideas.
HEALTH	Health activities are one way of helping people.
	People need each other in many ways.
	There are many different kinds of health helpers.
	Health includes preventing illnesses and injuries by helping people stay well.
	It is important to take safety precautions in any kind of activity.

FILMS	CONCEPTS
HEALTH (cont'd)	Manufacturing involves making things that people need and want.
	Tools help people make things easier and faster. People who make machines and tools help other people make the things we need and want.
	Manufacturing is one way of helping people.
	Things can be made by one person alone or by many people acting together.
	There are many different people doing many different things to make the various items we buy.
MARINE SCIENCE	Marine science involves the study and investigation of the things that live and grow in water.
	The exploration of the seas is one way of helping people.
	The oceans and seas help us by providing us with natural resources and in ways we cannot see (by helping to replenish the air we breathe).
	The oceans and seas are places people are still exploring and learning about.
MARKETING AND DISTRIBUTION	Marketing and distribution is about people helping other people in making, selling, and buying things.
	Marketing and distribution is one way people help other people live better.
	Many different people are involved in making and selling the things we buy.
	People help each other in many different ways.
PERSONAL SERVICE	Personal service activities are one way of helping other people.
	Making others feel better is an important part of life.

FILMS	CONCEPTS
PERSONAL SERVICE (cont'd)	Personal service involves helping people to look good and feel good about themselves.
	Some personal service helpers make people feel better by helping to solve their problems.
PUBLIC SERVICE	Public service activities are one way of helping others.
	There are many people who help, protect, and care for others. These are public servants.
	People doing public services are there when needed, even if you do not see them all the time.
	People who do public services help other people to have more time to do what they do best.
RECREATION-HOSPITALITY-TOURISM	All people like to relax and to have fun.
	Recreational activities are one way of helping people.
	People relax and have fun in many different ways someone else most enjoys.
	There are many recreation helpers who help people to relax and have fun.
TRANSPORTATION	Transportation is the way by which people and things are moved from one place to another.
	There are many different kinds of transportation and many different reasons why people use transportation.
	Transportation is one way of helping other people.
	Everyone is constantly involved with transportation activities--children as well as grown-ups.

Note: These films could be used either with classes or individuals.

2. Behavioral Statements of Objectives: Behavioral statements of objectives are advocated by the author. Simply stated, the instructor develops (states) the purpose(s) of the lesson in the form that he/she expects each student to perform. By stating objectives in these terms for each student, the instructor is able to accomplish three instructional tasks concerning individualization. They are:

(a) Individualize content - Skill or knowledge is more closely related to each student's goal.

(b) Individualize process - Appropriate activities must be assigned according to abilities, interests, and needs.

(c) Individualize pacing - Students may learn at their own pace according to their abilities.

3. Practical Teaching Strategy Suggestions:

3.a Curriculum Pre-planning: Whenever one plans a lesson certain considerations must be pondered carefully. The figure below exhibits a matrix of considerations to use when planning for instruction. This matrix is called a Naturalistic View of Teaching.

A NATURALISTIC VIEW OF TEACHING TEACHING TASKS (Figure 11)[17]

		Indiv. or Classroom Management	Planning Instruction	Indiv. or Classroom Interaction
TARGET AREA	Subject-Matter Competence			
	Structure			
	Organization			
	Motivation			
	Rapport			
	Response Opportunity			

3.b Lesson Planning: The author advocates the outline suggested earlier. An example is presented below in Figure 12:

FIGURE 12
EXAMPLE LESSON PLAN

Lesson 12

Goal: found in earlier outline

Prerequisites: Lesson 11

Objective: The student will be able to model helpful group behaviors.

Reinforcement: Lessons 28, 30, & 41.

Skill Development:

1. Rate data.
2. Set general short and long term personal goals.
3. Model attending behaviors.
4. Model good group presentation skills.

Lesson Strategy: (learning activity):

In this lesson, the student relates to another person in a clearly defined leader/follower relationship. With the help of others in the group, he examines and describes his feelings in these two situations. The student discovers qualities in himself that he did not know existed. This discovery helps prepare him to assess his needs, and to assess the extent to which he can become an effective group member.

Evaluation: Can the student exhibit the desired behavior?

3.c Instructional Techniques: Instructional techniques are keenly important in the implementation of a lesson. The figure below exhibits instructional techniques and decisional factors to be considered in selecting such techniques. Figure 13 is presented as a guide and resource to the instructor.

Figure 13

INSTRUCTIONAL TECHNIQUES *

Decisional Factors in selecting instructional techniques.

Techniques*	Decisional Factors		
	Sensory Appeal	Relevant Learning Processes	Practical Advantages
Lecture	Sound, sight	Information, comprehension	Handle large groups. Fast way to cover large amount of material
Group Discussion	Sound, sight	Information, synthesis, analysis evaluation	Involves students in decision making
Student reports	Sound, sight, touch	Information, comprehension	Involves students
Field trips	Sound, sight, touch, smell, taste	Information, analysis comprehension, synthesis, application evaluation	Practical experience with real thing
On-the-job training	Sound, sight, touch, smell, taste	Information, analysis comprehension, synthesis, application evaluation	Practical experience with real thing
Team training	Sound, sight, touch, smell	Information, synthesis, comprehension	Allows for greater specialization and flexibility. Maximum efficiency
Programmed learning	Sound, sight, touch	Information, application, analysis synthesis, evaluation comprehension	Learner can proceed at his own pace. Immediate reinforcement
Demonstration	Sight, sound touch, smell	Information, analysis evaluation, comprehension	See how to perform a given task

*SOURCE: Board of Vocational Education and Rehabilitation, DVTE, Bulletin 34-872, State of Illinois, Springfield, IL, p. 61.

3.d Integrated Lesson: The author is concerned about considering all alternatives to implement each lesson on an individualized basis. Figure 14 is exhibited to demonstrate the Process of Individually Prescribed Instruction. This process considers many alternatives of learning to implement individualized or personalized instruction.

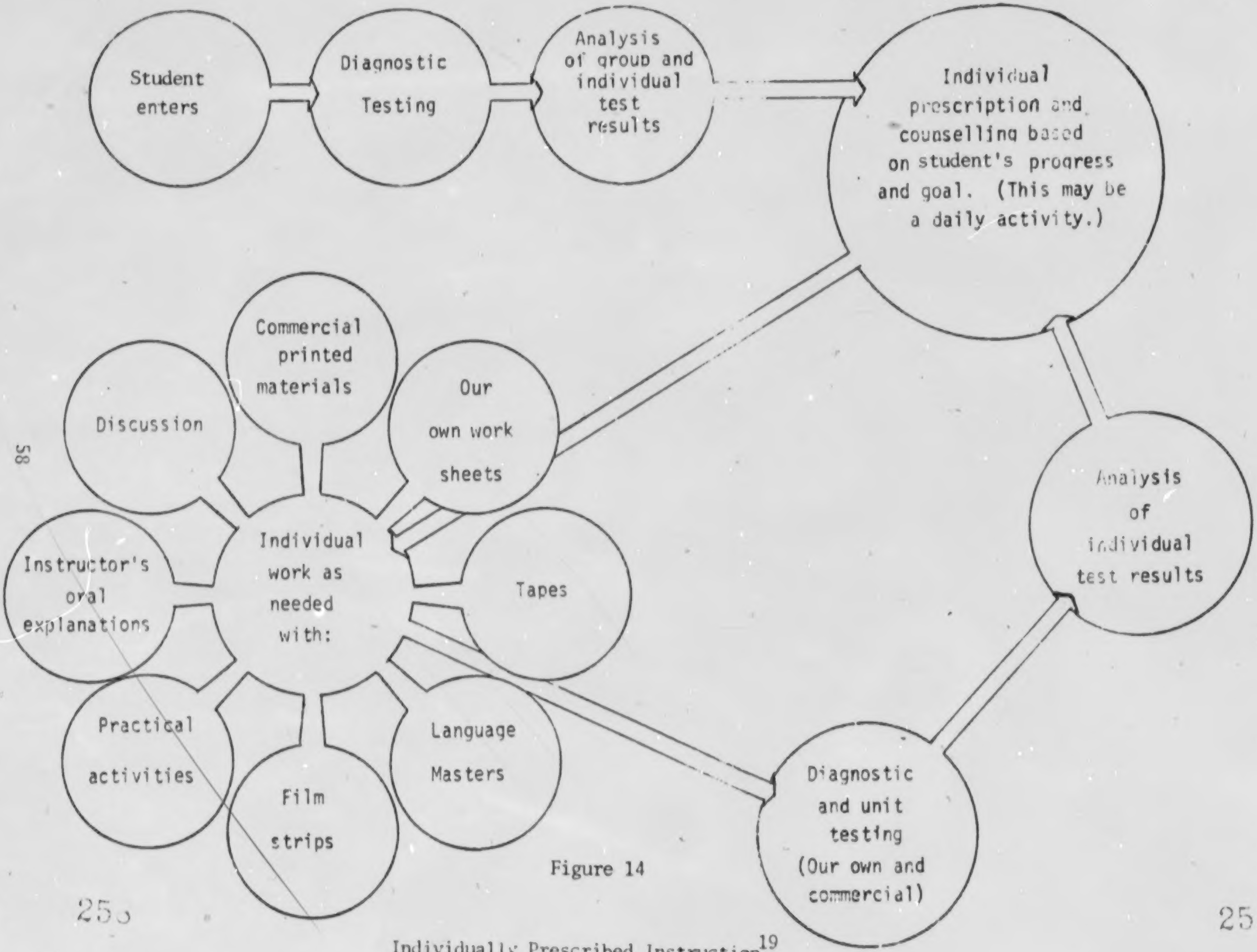

Student enters
Diagnostic Testing
Analysis of group and individual test results
Individual prescription and counselling based on student's progress and goal. (This may be a daily activity.)
Commercial printed materials
Discussion
Our own work sheets
Instructor's oral explanations
Individual work as needed with:
Tapes
Practical activities
Film strips
Language Masters
Analysis of individual test results
Diagnostic and unit testing (Our own and commercial)

Figure 14

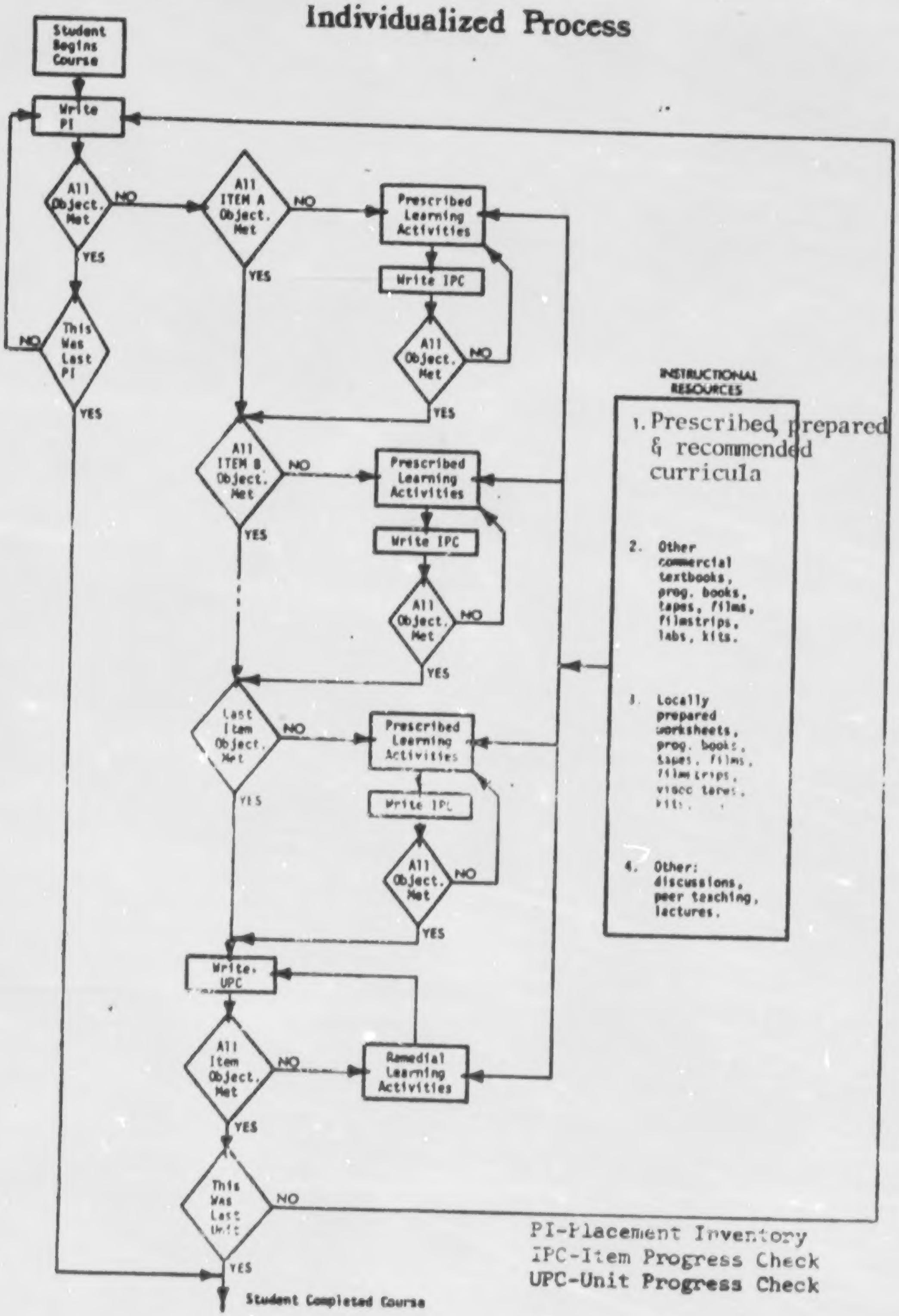
Individually Prescribed Instruction[19]

3.e Flow Charting the Individualized Process: A valuable process of planning individualized instruction is to develop a flow chart of a series of lessons, clusters, etc. Figure 15 is presented as an example of this process. The process involves all the aspects of the previously described General Model of Instruction. However, it depicts more clearly the movement of the student from one learning objective to another.

Figure 15

FLOW CHARTING THE

Individualized Process


Student Begins Course
Write PI
All Object. Met
NO
YES
This Was Last PI
NO
YES
All ITEM A Object. Met
NO
YES
Prescribed Learning Activities
Write IPC
All Object. Met
NO
YES
All ITEM B Object. Met
NO
YES
Prescribed Learning Activities
Write IPC
All Object. Met
NO
YES
Last Item Object. Met
NO
YES
Prescribed Learning Activities
Write IPC
All Object. Met
NO
YES
Write UPC
All Item Object. Met
NO
YES
Remedial Learning Activities
This Was Last Unit
NO
YES
Student Completed Course
INSTRUCTIONAL RESOURCES
1. Prescribed, prepared & recommended curricula
2. Other commercial textbooks, prog. books, tapes, films, filmstrips, labs, kits.
3. Locally prepared worksheets, prog. books, tapes, films, filmstrips, video tapes, kits.
4. Other: discussions, peer teaching, lectures.

PI-Placement Inventory
IPC-Item Progress Check
UPC-Unit Progress Check

SOURCE: Saskatchewen New Start Inc.[20]

3.f Instructional Media: Figure 16 exhibits decisional factors to be considered by an instructor when selecting media for presentations and/or lessons. This information is presented as a resource to the instructors.

Figure 16

INSTRUCTIONAL MEDIA

Decisional factors in selecting instructional media.

Media*	Decisional Factors		
	Sensory Appeal	**Relevant Learning Process**	**Advantages**
Educational television	Sight, sound	Information, comprehension	Dramatization. Enables teaching of values, attitudes, and concepts
Mock-ups	Sight, sound, touch, smell	Application, information, analysis, synthesis, comprehension	Spatial relations. Enables the study of dimensions
Slides	Sight, sound	Information, comprehension	Regulates teaching speed
Tapes	Sound	Information, comprehension, analysis, synthesis, evaluation	Individualized instruction. Can utilize human resources
Wall charts	Sight	Information, comprehension	Relationships seen
Transparencies	Sight, sound	Information, comprehension, analysis, synthesis	Relationships seen. A self-teaching device
Animated	Sight, sound	Information, comprehension, analysis, synthesis, evaluation	Self-teaching device
Concept and skill trainers	Sight, sound, touch, smell	Information, comprehension, application, analysis, synthesis, evaluation	Self-teaching device

*Additional techniques which may be developed are simulators, chalkboard, bulletin board, printed materials, computer-assisted-instruction, computer games, single concept films, video tapes and teaching machines.

*SOURCE: Board of Vocational Education and Rehabilitation,[18] Bulletin #34-872, State of Illinois, DVTE, Springfield, IL, p. 62.

3.g Performance Contracting: Performance contracting is a mutual agreement between teacher and student. In general, contracts are usually most effective when the goals of the contract are mutually agreed upon by both teacher and student. This implies awareness of (1) student aptitude and interest, (2) appropriate goals, (3) reasonable time constraint, and (4) well defined, written performance levels Often a reward, intrinsic or extrinsic, is a part of the contract.

Students should be encouraged to engage in performance contracts. These agreements are generally a strong motivating force to learning. This process promotes "ownership" or commitment on the part of the learner and clear expectations on the part of the teacher. Moreover, contracts of all sorts are a regular and real part of our society.

One of the most obvious contracts for teaching would involve an agreement where the student would agree to complete a unit or lesson series of academic work and receive a reward. (Many utilize token economics - see previous dialogue.) Three other suggestions are offered here. They are variations of the basic contract situation; they are contracts with emphasis on: (1) career exploration, (2) work experience, and (3) self-evaluation. The examples follow:

1. Career Exploration: The student may contract with the career education instructor to investigate three (3) careers of his or her choice. The student may seek information and report in both oral and written forms to the teacher. A guide for exploration may be used, like the one exhibited below in Figure 17.

FIGURE 17

OCCUPATIONAL INTERVIEW GUIDE

1. What schools did you attend?

2. What is your present job?
    a. How did you get it?
    b. How long have you worked there?
    c. What time did you go to work this morning?
    d. What was the first thing you did?
    e. How long did that take?
    f. What did you do next? (Follow through the entire day).
    g. Did you do anything yesterday that was different from what you did today? Does that happen often?
    h. What else do you do on your job?
    i. Of all these various duties, which ones take most of your time?

3. What changes have taken place recently? Do you foresee any in the near future?

4. What things do you like most about your job? Least? Are there any hazards?

5. What is the usual starting salary in jobs like yours?

6. What qualifications do you need to get the job? Age? Sex? Height? Weight? Other? Marital Status? Tools? License? Aptitudes? Unions? Discrimination? Veteran? Capital?

7. Preparation? Minimum? Desirable? Time? Cost? Content? Approved schools? Preferred subjects?

8. Supply and demand for workers? Outlook for the future? Advancement?

9. Hours? Regular? Overtime? Evening? Sunday? Holiday? Steady or seasonal?

10. Is there anything we should have asked? What would you like to ask us?

(Adapted from material in OCCUPATIONAL INFORMATION by Robert Hoppock, McGraw-Hill Book Company, 1967).[20]

2. Work experience: The student may contract to experience three (3) selected occupations for a period of time to know how he/she felt about such an occupation. A log of experiences and opinions may be kept. This log could be used as data to assist the instructor and the student in evaluating the appropriateness of this occupation for him/her. The following outline might be used.

FIGURE 18

CAREER RESEARCH [21]

1. Career Title ____

2. What kinds of things would someone with that career do?

3. What activities have you done that are similar to the activities in this career?

4. What things sound GOOD about that career?

5. What things sound BAD about that career?

6. How much money could you make in that career?

7. How much education is usually required for it?

8. Who do you know that has a career similar to this one?

9. How is your personality suited or unsuited to this career?

3. Self-Evaluation: After the student has interviewed people regarding his/her career, has done research on specific careers, and has had an opportunity for some on-the-job experience, it is essential that he/she examines characteristics and qualities of their own personality. A self-awareness or self-evaluation is extremely important in successful career decision-making. An example of a self-evaluation form is given below in Figure 19:

CAREER EXPLORATION: "TAKING A LOOK AT MYSELF" (Figure 19)[21]

	MOST OF THE TIME		SOMETIMES	NOT VERY OFTEN	
	1	2	3	4	5
Energetic					
Cooperative					
Considerate					
Takes Charge					
Courteous					
On the Ball					
Neat					
Not Quick to Anger					
Hot-Tempered					
Put Things Off					
Relies on Others					
Careful					
Patient					
Independent					
Needs Support of Others					
Serious					
Reliable					
Prefers Charge					
Enjoys Studying					
Willing to Study					
Prefers to Work Alone					
Enjoys Helping Others					
Prefers to Work Indoors					

Career Exploration: "Taking A Look At Myself", cont'd

	MOST OF THE TIME		SOMETIMES	NOT VERY OFTEN	
	1	2	3	4	5
Enjoys Working with Figures					
Enjoys Fixing a Car					
Prefers Doing A Lot of Same Things Everyday					
Prefers to Work with Hands					
Enjoys Having a Pet					
Enjoys Working with Animals					
Enjoys Animals					
Enjoys Music					
Enjoys Doing a Puzzle					
Enjoys Art					

SUGGESTED ROLES AND RESPONSIBILITIES OF PERSONNEL IMPLEMENTING THE INTEGRATED CURRICULUM

Personnel dispatching their responsibilities effectively is the key to a successful program. The Integrated Curriculum, like other programs, is absolutely dependent upon (1) definition of and understanding of personnel roles and responsibilities and (2) effective dispatch of those changes. This subsection is designed to discuss suggested roles and responsibilities of personnel. Obviously, effectiveness must be judged once individuals assume the roles suggested. Therefore, the remainder of this section is divided into two parts that focus directly on roles and responsibilities, they are: (1) discussion of roles and responsibilities of personnel to implement the integrated curriculum and (2) outline of suggested roles for individual personnel.

Roles and Responsibilities of Personnel To Implement the Integrated Curriculum

The Integrated Curriculum consists of five specific components. Four of these components occur during residential placement, while the fifth occurs once the student is dismissed. Because of the complexity of the curriculum, Figure 20 was constructed. This figure is a listing of curriculum areas and major objectives. Further, personnel primarily responsible for each major objective are listed. In addition, persons who share responsibility are also listed. This figure is an outline of suggested responsibilities for residential personnel for major objectives of the Integrated Curriculum. Further, because of the lengthy discussion throughout this document, it is hoped individuals are able to perceive the need for team-work in order to effect this program.

Figure 20 further exhibits the integration of curriculum, services and personnel utilization. The integrated curriculum here demonstrates a means of bringing together students, residential personnel, public agencies and employees, basic learning and experience to better prepare these youth for societal participation. Curriculum in this sense is a proposed system that will hopefully guide the attainment of a broad range of academic, personal and career development for the individual students. Moreover, this figure demonstrates a linear development for individual students with indications of major emphasis. Finally, this diagram is exemplary of continuous education of a wide variety, including academic, work experiences, and societal integration.

FIGURE 20

LISTING OF CURRICULUM AREAS/OBJECTIVES FOR THE INTEGRATED CURRICULUM AND DISIGNATED RESPONSIBLE PERSONNEL

Curriculum Areas/Objectives	Personnel Primarily Responsible	Other Relevant Personnel	
BASIC LIFE MANAGEMENT			
1. Managing Personal Finances	Educator[3]	Coordinator[1]	Staff[2]
2. Selecting, Managing and Maintaining a Home	Educator	Coordinator	Staff
3. Caring for Personal Needs	Educator	Coordinator	Staff
4. Family Life	Educator	Coordinator	Staff
5. Purchasing and Caring for Clothing	Educator	Coordinator	Staff
6. Engaging in Civic Activities	Educator	Job Coach	
7. Utilizing Recreation and Leisure	Educator	Physical Educator Recreation Staff	
8. Mobility in the Community	Educator	Job Coach	

Curriculum Areas/Objective	Personnel Primarily Responsible	Other Relevant Personnel	
PERSONAL-SOCIAL SKILLS			
1. Self-Awareness	Educator Coordinator	Job Coach	Staff
2. Self-Confidnnce	Educator Counselor	Job Coach	Staff
3. Socially Responsive Behavior	Educator Coordinator	Job Coach	Staff
4. Interpersonal Relationship	Educator Coordinator	Job Coach	Staff
5. Achieving Independence	Educator Coordinator	Job Coach	Staff
6. Making Good Decisions Problem-Solving	Educator Coordinator	Job Coach	Staff
7. Communicating Appropriately With others	Educator Coordinator	Job Coach	Staff
ACADEMIC DEVELOPMENT			
1. Language Arts	Educator Coordinator	Job Coach	Staff
2. Educational Awareness	Educator Coordinator	Job Coach	Staff
3. Career Awareness	Educator Coordinator	Job Coach	Staff
4. Economic Awareness	Educator Coordinator	Job Coach	Staff
5. Decision Making	Educator Coordinator	Job Coach	Staff
6. Beginning Competence and Skill Awareness	Educator Coordinator	Job Coach	Staff
7. Employability Skills	Educator Coordinator	Job Coach	Staff
8. Attitudes and Appreciations	Educator Coordinator	Job Coach	Staff

1. Coordinator here refers to counselors. The counselor plays a role of coordinating the assistance of students: (a) in understanding themselves and their opportunities, (b) in making appropriate decisions and choices, and (c) in initiating a program of academic education which will move them toward the work in their own areas of preference and skill. Further, the coordinator works closely with all other personnel to assist each individual student in reaching his or her goals.

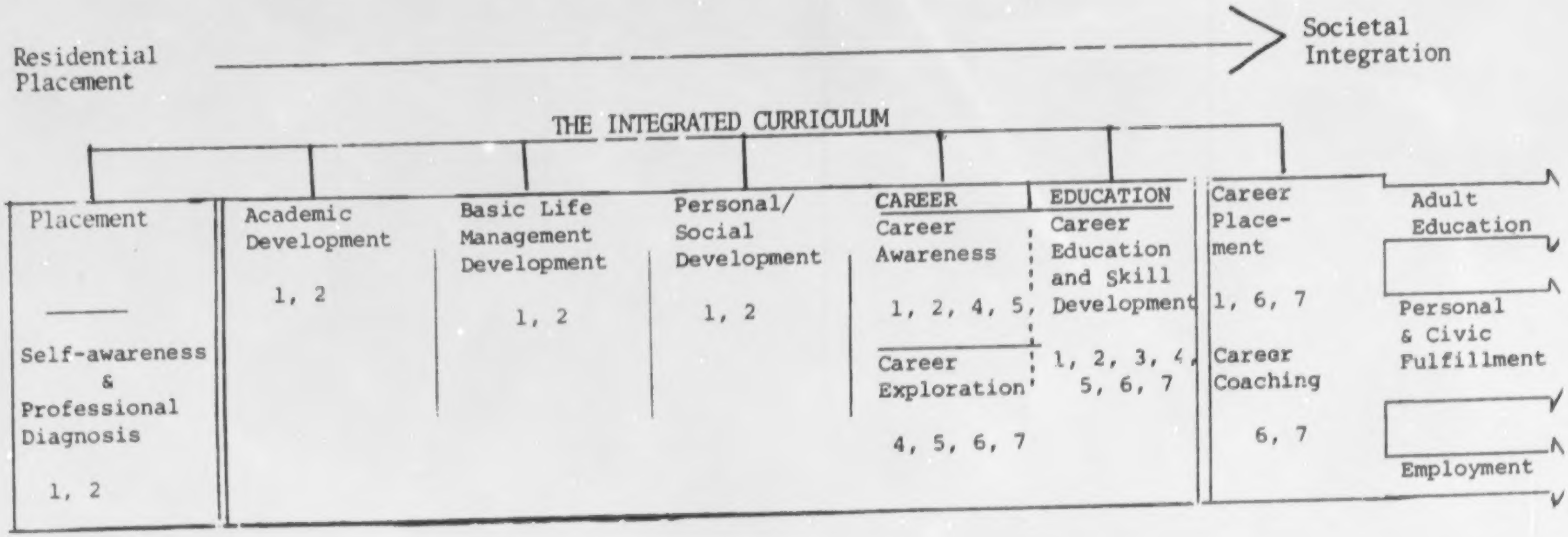
2. Staff here refers to all other professionals employed where students may work or be assigned. It also implies interaction with non-residential persons.

3. Educator(s) are all individuals who have instructional responsibility for components of the curriculum on a classroom basis.

FIGURE 21

THE INTEGRATED CURRICULUM:

A COMPREHENSIVE CAREER DEVELOPMENT SYSTEM FOR CHRONIC - DISRUPTIVE YOUTH


Residential Placement
Societal Integration
THE INTEGRATED CURRICULUM
Placement
Self-awareness & Professional Diagnosis
1, 2
Academic Development
1, 2
Basic Life Management Development
1, 2
Personal/ Social Development
1, 2
CAREER
Career Awareness
1, 2, 4, 5,
Career Exploration
4, 5, 6, 7
EDUCATION
Career Education and Skill Development
1, 2, 3, 4, 5, 6, 7
Career Placement
1, 6, 7
Career Coaching
6, 7
Adult Education
Personal & Civic Fulfillment
Employment

CONTINUOUS GUIDANCE AND EDUCATIONAL SERVICES BY:

1. Coordinators
2. Academic Personnel Educators
3. Cottage Residence & Staff
4. Job Exploration Director
5. Staff of Institution - i.e. Baker, etc.
6. Career (Job) Coach
7. Persons outside of Institution

NOTE: Numbers in boxes indicate major input by above named personnel of Illinois State Youth schools.

An Outline of Suggested Roles and Responsibilities for Personnel

Since the effective implementation of the Integrated Curriculum is dependent upon the team effort of residential personnel and public officials/persons, a brief outline of the key responsibilities of each of these major personnel groups is listed in this sub-section. The outlines of personnel responsibilities are in five general groups as follows:

1. Administrators and Supervisors: These individuals will:
   - 1.1 Administer over all program
   - 1.2 Coordinate all personnel
   - 1.3 Acquire funding
   - 1.4 Facilitate interaction with other agencies
   - 1.5 Develop public contacts for programatic purposes
   - 1.6 Develop inservice education programs for personnel

2. Coordinators, Counselors: These individuals will:
   - 2.1 Assist in residential adjustment
   - 2.2 Assist in individual diagnosis of interests and aptitudes
   - 2.3 Be responsible for personal and small group counseling and charting educational experiences
   - 2.4 Assist the student in selected educational experiences, especially related to career development
   - 2.5 Work closely with academic educators and staff to effect the Integrated Curriculum in both major and minor role responsibilities
   - 2.6 Develop and teach related concepts to students
   - 2.7 Assist in staff development
   - 2.8 Conduct program evaluation

3. Academic and Career Educators: These individuals will:
   - 3.1 Develop curriculum modules/units of the Integrated Curriculum
   - 3.2 Work as teammates with coordinators to implement individualized education and experience.
   - 3.3 Develop, with staff assistance, meaningful work stations
   - 3.4 Develop contacts, outside of the residential center, for program and student development
   - 3.5 Assist in staff development
   - 3.6 Provide and participate in inservice education experiences
   - 3.7 Conduct continuous evaluation program and student development.

4. Staff: These individuals will:
    4.1 Assist educators and coordinators with work experience programs
    4.2 Provide educational work experience to students
    4.3 Provide personal and recreational services to students

5. Job Coach: These individuals will:
    5.1 Be knowledgeable of the student(s) program in the integrated curriculum
    5.2 Develop job opportunities for students
    5.3 Develop public relations programs
    5.4 Counsel students
    5.5 Teach relevant concepts to students
    5.6 Work closely with families and relevant public persons
    5.7 Work closely with employers to improve student opportunities and education

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Job Coaching

Sidney R. Miller

Northern Illinois University

Running Head: Job Coaching

Job Coaching

The tendency in Career Education has been to ignore or minimize the implementation facet of the program. The primary emphasis has been on preparation within the school or residential center. As a result, little consideration has been given to the development of Career Coaches, whose responsibilities include identifying job markets, contacting potential placement sites, making the student placement, and insuring the relationship between the student is appropriate and results in learning. Contemporary texts and work manuals (Work Experience and Career Exploration Guide, 1975, and Work Experience Career Exploration Guide, 1974) have paid no attention to the job coach and his responsibilities though they imply the need for such individuals and recognize the necessity of outside implementation practices. Traditional Career Education has sought to work with youth in the institution and/or school, providing career counseling, job stations, skill teaming, and instill in the youth the prevalent social and philosophical values of the community.

To increase the effectiveness of career programs, institutional superintendents, school superintendents, and governmental legislative bodies must provide funds for the development of Career Coaches and the support of youth once sent out into the job market. The need for Career Coaches is particularly imperative when the youth has a history of chronic disruptive behavior and has been recently released from a detention or residential center. Among such youth the recidivism is high (Sabatino, 1975). While the reasons for the recidivism are multiple, major contributions are poor follow-up once the youth is released from the residential setting and the lack of close cooperation with business, industry, and other agencies in the community.

Cooperative efforts among various community and business agencies are essential for career education programs to succeed (Burt and Lessinger, 1970). Such cooperative efforts: a) produce programs of instruction more effective than those provided solely in training centers, b) enable both training and business officials to measure instructional and training appropriateness, c) provide an on-going quality control process, and d) insure relevance of career training for youth. The necessity for cooperation and the integration of training and on-site experience was cited by Clark and Sloan (1960). They report a general attitude that training ends with the conclusion of schooling is completely untenable in career preparation. Borow (1973) noted that the interfacing of training and practical experience generally benefits the youth's performance in training and in school. He cited studies which indicated youth in work programs generally showed gains in schooling. Educators and counselors have known for some time that theory and practice without practical experience tended to make the latter less relevant to the trainee. Williamson (1965), in reviewing the responsibilities of the counselor, noted that there must be a connection between the theory and the practice, the thought and the performance. Similarly (Rhodes, 1970), advocated that all segments of the community become involved in the implementations of career planning and experience. He noted parks, school boards, industry, business, labor leaders, and state and federal government officials must participate guaranteeing effective progress. Hayes and Hopson (1971) supported Rhodes, noting:

> ...work experience, organized either by the counselor as part of the career program or by the student himself has an important influence on vocational development.
>
> (p. 26)

It was further suggested that practical experience can contribute to the individual's assessment of self as well as the world of work. Such experience can be provided either on a full-time or part-time basis. The management of this experience involves having the student arrive at the work station at the starting time and having him follow all the regulations applicable to other employees. Hayes and Hopson cited contrary notes:

A. Treat the work experience as an educational experience, and not a final answer to their career goals and needs.

B. Students ideally should be given a variety of work experiences so they can become acquainted with alternative career directions.

C. Safeguard any experiences against violation of various legal restraints.

D. Cooperation of business, industry, community agencies, and other interested groups is essential. It was recommended that the employer: 1) provide experiences for the least and most attractive elements of the position. 2) offer varieties of experiences during a single day. 3) insure the youth against injury. 4) designate an experience, understanding adults assist the youth.

E. Follow-up of the experiences should be made, so the usefulness of the placement can be assessed.

F. Parents should be a part of the placement and assessment process.

Ginzberg (1971) feels the public must be made part of the career experience. Ultimately without the support of the public funds to implement career programs will not be forthcoming.

Career Coaching

The job coach needs to have familiarity with all the components of the preparation, program design (Chapter 1), diagnosis (Chapter 2), career information (Chapter 3), and integrated curriculum (Chapter 4).

The operation of any career coaching must involve personnel who are familiar with the nature and needs of the individuals who will be serviced by the program. This involves familiarity with such youths' home and community life, the nature of peers, school, and family influence. In addition, the nature of the youth's view of police authority must be considered and known by the career coach.

Many of the chronic disruptive youth who are serviced by this program are not accepting of the contemporary middle class values of our society. Thus, a career coach unwilling to acknowledge these differences will ultimately fail in seeking to assist the youth and the community. The criteria for hiring such coaches should not be a college education. Rather, the coach should be expected to possess the following skills:

A. Adaptability. He or she must be an individual conversant with the background of the youth being served and the teacher and/or employer who works with the chronic disruptive youth.

B. Job Market Information. The coach must know the job market and be able to identify potential employment and training areas, and the individuals who are able to facilitate participation in the chosen area.

C. Counselor. The coach must be capable of understanding the youths' and the teacher's and/or employer's needs and resolve any differences that may exist between the two.

D. Competency Awareness. The coach must be able to identify the skills necessary for success in various settings and be certain the youth referred for has the competencies.

E. Public Relations. The individual working as a coach, must recognize the success in his position is measured by his ability to familiarize potential fellow employees of the youth, the community and the school with strategies that result in positive adjustment for all parties.

F. Alternatives. The coach must recognize that all youth will not benefit from on single program. Alternatives must be available to meet each youth's individual needs, interests, and competencies.

The coach who identifies various alternative positions should also make the placements and maintain contact with all parties during the familiarization, placement integration period. This program strategy maintains program continuity of placement, integration, and prevents channels of communications from being clogged. Too often division of efforts creates programmatic and personal difficulties, resulting in distrust andsuspicion.

Curriculum

Any instruction provided by the career coaches is expected to supplement the career education curriculum provided by the residential centers and schools. This curriculum will include communications skills, science and health, mathematics , and social studies. The responsibility of the personnel prior to placement are:

A. insuring the youth does possess the primary skills for obtaining a job.

B. identifying settings and professional areas where the youth can be placed.

C. providing orientation to the youth so they can make appropriate social and career adjustments.

D. conducting follow-through field surveys and counseling to determine effectiveness of placement and make necessary placement adjustments.

For the job coach to make the appropriate placement, he needs to obtain test data relating to academic, career, and social attitudes and behavior. This data can be transmitted on the following forms.

Form A

Date________________________ Name______________________________ M F
First M.I. Last Sex

Referral From Training Center

PERSONAL INFORMATION:

Date of birth____________Age____Home address______________Phone________

Height________Weight________Wear glasses?____Physical handicaps?__________

Social Security #____________Father living?____Mother living?____

Father's Occupation________________Where?__________________

Mother's Occupation________________Where?__________________

Plans: High School____Technical School____College____Business School____

Work____Undecided____

In what area is training desired?

1st choice________________Reason______________________

2nd choice________________Reason______________________

Transportation: Have a car?____How will youth get to career setting__________

List two persons (not relatives) who would be good references:

1.__________________________Relationship______________Phone________
Occupation______________

2.__________________________Relationship______________Phone________
Occupation______________

List previous employment:______________________________

____

Remarks:______________________________________

____

____

Possible training stations______________________________

Form B

Date____________________

Testing and Academic Record

Name____ Age__________

Sex__________

I. Academic Test Results

A. Reading
- Word recognition ______________________________
- Comprehension (oral) ______________________________
- Comprehension (silent) ______________________________
- Word attack skills ______________________________

B. Spelling
- Mathematic ______________________________
- Computation ______________________________
- Reasoning ______________________________
- Concepts ______________________________

C. Language
- Vocabulary ______________________________
- Similarities ______________________________
- Punctuation ______________________________

II. Aptitude Results

A. Perception ______________________________

B. Sensory-motor skills ______________________________

III. Career Assessment Score

Career Aptitude ______________________________

IV. Social Awareness ___________________________________

Form C

Date

Instructional Results

(At what level is the youth functioning) Comments

I. Language Arts
- Level I
- Level II
- Level III
- Level IV

II. Mathematics
- Level I
- Level II
- Level III
- Level IV

III. Health and Science
- Level I
- Level II
- Level III
- Level IV

IV. Social Studies
- Level I
- Level II
- Level III
- Level IV

NIU

Form D

STUDENT RATING SCALE

ame of Student______________________________ Date_________________________

In the proper spaces below, rate student on the items listed as follows:

5 - Superior 4 - Above Average 3 - Average

2 - Below Average 1 - Poor

TRAITS	POINTS
Ability to learn	____________________
Capacity for work	____________________
Judgment	____________________
Initiative	____________________
Appearance	____________________
Leadership quality	____________________
Desire to make good	____________________
Ability to take orders	____________________
Reliable	____________________
Perseverance	____________________
General conduct	____________________
Accepts criticism	____________________
State of health	____________________
. Ability to mix	____________________
Would you want this person working for you?	____________________

Yes____ No____ Doubtful__________

arks:____

____

____

____

Rated by:__________________________

NIU

Alternative Programs

Wide varieties of alternatives exist for placement of chronic disruptive youth. As was noted in the literature, such youth require wide ranges of experiences so they can measure themselves and the potential career choice. It is imperative the youth recognize the flexibility he has in selecting careers so that he is not trapped by the first choice. The coach in making placements and establishing alternatives ought to weigh a number of variables. They are:

A. Career choice of youth

B. Age

C. Aptitude skills

D. Social skills

E. Academic level of achievement

F. Reliability

G. Honesty

H. Leadership ability

I. Commitment to goals

J. Health

Once these factors have been assessed the job coach must decide which of the following best matches the youth's needs, interests, and abilities.

A. Full-time school

B. Part-time school, part-time work

C. Part-time school, part-time vocational training

D. Full-time vocational training

E. Part-time vocational training, part-time work

F. Full-time work

Whether the placement be full-time schooling or full-time work experience, the career coach can best service the youth by insuring that the client's skills are being constantly up-graded. It is the essence of career education that levels of competencies are regularly assessed and developmental career goals are revised to meet societal, personal, and economic realities. Without such continual review and program alteration the youth may tire or become frustrated with career placement.

Career Placement Criteria

Numerous considerations require assessment prior to career placement. These considerations range from working conditions to the personal and professional ability of the potential placement station to assist the youth. They are: 1) convenience of location, 2) health and safety conditions, 3) hours which must be worked, 4) adequacy of facilities and equipment, and 5) the potential agencies compliance of applicable laws.

They further state the purpose of such cooperative career education is learning. Both the job coach and the work station supervisor must have the skills to instruction for youth so they can learn something new at the work station. In identifying personnel that will work with the disruptive youth, the job coach must be certain the individual can: a) manage the youth's general behavior, b) provide professional technical assistance, c) exhibit exemplary behavior for the youth to model, d) organize the work experiences, e) communicate with the youth, f) understand the career education program and the youth, and g) recommend alternatives in the career program for the youth.

Besides the responsibilities to the youth, the job coach must recognize his responsibilities to the employer and/or placement site supervisor. The youth needs to be acquainted with the requirements of those he will be interacting with during a particular placement. If it is a business employer, the youth must be informed about the nature of the business, the fact that the business is operating for profit, that it is seeking to promote either its services or products, and, that when the youth takes a position with the employer he tacitly accepts responsibility for promoting the business's efforts. If it is a training or school site, the youth needs to be informed about the school's needs and problems, and how he might succeed in such an environment. Should the youth refuse to cooperate with the placement site officials, he should be told of the consequences of his activity, which may be interpreted as disruptive. Termination should only follow after the youth understands both the positive and negative consequences of his actions.

Contracting

Contracting would be an effective technique for insuring the youth understood the conditions of the placement, including general behavior, time of arrival at work station, dress code, work responsibilities. The contract can be drawn up on a simple standard form.

Insert form about here

Form E

Performance Contract

I ______________________________ agree to adhere to the following conditions of placement.

A. I will arrive at ________________________ and leave at ________________ each day.

B. I understand the dress expected at the work station is ______________________________.

C. I will receive ________________ (amount) for performing the following tasks:

1.
2.
3.
4.
5.
6.

AGREEING PARTIES

________________________________ ________________________________

The job coach, in making contact within potential placement sites, must ascertain the general appropriateness with the various agencies. Among the agencies the coach may contact are these:

A. vocational training centers

B. Junior Chamber of Commerce

C. Department of Employment

D. Goodwill Industries

E. shipping firms

F. food service companies

G. heavy industry (steel, car manufacturing, construction)

H. laundries

I. building maintenance firms

J. Others

Following are the types of information one might be expected to obtain from such agencies.

Insert forms about here

Conclusions:

Without adequate and appropriate career coaching, a well designed curriculum-instructional program will sputter at the threshold of success. The transitions from school and institutional settings to career placement is difficult. The rules of career and social conduct are dramatically altered once the chronic-disruptive youth is on his own. His own supporting agent is the career coach who must comprehend the complexity of the youth's needs and those of the agency that assume this human responsibility.

Form F

Coach's Activity Report

Name of Agency: ____________________

Address: ____________________ Phone __________

Attitude	Superior	Average	Poor
Cooperation			
Friendly			
Interested			
Open to new ideas			

Intent of Visit: ____________________

____

____

Need follow-up visit: _____yes _____no

If so, what are goals? ____________________

____

____

What skills can it teach the youth?

1. ____________________
2. ____________________
3. ____________________
4. ____________________
5. ____________________
6. ____________________

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Form G

Survey of Possible Companies Offering Jobs

Company Follow-up

Date____________

1. Company Name____________________________________

   Address__________________________Phone No.__________

2. Product or Service__________________________________

   Contact Person (Title)______________________________

3. Number of Entry Level Jobs: Male__________Female__________

4. Job Categories____________________________________

   ____

5. Average Qualifications:

   Age__________Physical____________________________

   Educational______________________________________

   Draft Status______________________Police Record________

   Minimal Qualifications:

   ____

   ____

   Wages__________Pay Period__________Vacations__________

   Hours__________Shifts__________Sick Leave__________

   Company Services____________________________________

   Insurance____

   Pension____

   Hospitalization____________________________________

   Unions____

6. Supports:

   A. In Company____________________________________

   ____

B. Program Center ____

____

7. Existing In-Company Training Programs (Entry Level)

____

____

____

____

____

____

____

8. Proposed Company Training Programs for Participants:

____

____

____

____

____

____

____

9. Comments and Impressions:

____

____

____

____

____

____

____

10. Contact Person ____

Form H

Training Information Sheet

Job Title: ______________________ Type of Training: ________
Job Description: ______________________

Agency: ______________________ Phone: ________
Address: ______________________
Contact Person: ______________________ and/or ________

Training Offered: ______________________ Starting Dates: ________

Skills required: ______________________ Ending Dates: ________

Days: ______________________ Hours: ________

Enrollment Requirements:
Target Area: ______________________ Tests: ________
Age: ________ Weight: ________ Height: ________

Enrollment Procedures (Referral Procedures): Aptitude:

Stipend: Amount: ________ How Paid: ________ When Paid: ________

Date of Information: ______________________
Updated: ______________________

Additional Comments: ______________________

It is the career coach's responsiblity to ease and effect the transition. He or she must have knowledge of the youth's past history, educational performance, skill competency, social aplomb, and personal goals. The coach must then guide the youth through the hurdles, seeking to insure that the unexpected does not occur, and if it does occur, adequate safeguards are developed to assist the youth to cope with this new factor. Too often this youth views the community as predatory, and he responds with frustration, first, and then anger. The job coach can structure and channel the youth's progress and awareness, and assist him in avoiding the pitfalls that too often stalk their youth.

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A SUGGESTED COURSE OUTLINE FOR TEACHERS, COUNSELORS, COORDINATORS, AND JOB COACHES OF CHRONIC-DISRUPTIVE YOUTH

SCIENCE AND HEALTH SECTION

Compiled by

Dr. Sidney Miller
Dr. David Miller
Dr. Charles Sloan

October, 1975

A COURSE OUTLINE
FOR TEACHERS, COUNSELORS, COORDINATORS AND JOB COACHES
OF CHRONIC-DISRUPTIVE YOUTH

SCIENCE AND HEALTH SECTION

ST. CHARLES, ILLINOIS

Forward

Though chronic disruptive youth generally possess considerable wisdom on the workings of the courts, the street, and some community service agencies, he lacks sophistication in the essential communal areas of science and health. Knowledge in these areas is imperative. Success in our highly technical society requires familiarity with certain basic scientific concepts and practices. This knowledge must be supplemented with familiarity and use of good health procedures.

COURSE OUTLINE

SCIENCE AND HEALTH

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SCIENCE AND HEALTH OVERVIEW

Much of the study content as outlined on the following pages is to be considered an adjunct to the more specific skills a person requires to be a fully functioning and contributing member of society. However, a portion of the science unit and most of the health unit contain valuable information in the course of everyday living.

It is the intention of the author that the use of the study content and suggested learning experiences be a joint decision between the student and his coordinator. Not every student should be expected to study every area. It is essential that the abilities, interests, and needs of each individual be considered in the selection of study content.

The following is a suggested content outline:

General Science I

1. A study of the characteristics of and differences between living and non-living organisms.
2. A study of celestial bodies, their characteristics and the resources they provide for living things on earth.
3. A study of magnetism, basic electrical principles and safety rules, and simple machines.

Biology II

1. A further, more intensive study of living and non-living things.
2. The study of the characteristics and the basic needs of plants and animals, and their interrelationship.
3. The study of the human body, its systems and their functions.

Health and Safety III & IV

1. The study of practical safety and first aid procedures.
2. The study of the ways in which to care and protect the body to insure optimum health.
3. The study of sex education and human reproduction.
4. The study of consumer health education.
5. The study of the effects of excessive use of alcohol, drugs, and tobacco on the body.
6. The study of human growth in four phases: physical, mental, emotional, social.
7. The study of the development of personality and relationships with others.

GENERAL SCIENCE I

GENERAL SCIENCE I

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
LIVING ORGANISMS	The student will be able to understand structure and function of single plants and animals.	I. Differences between plants and animals A. Locomotion ability B. Ability to see, hear, smell, feel C. Obtaining nourishment 1. Plants--roots and leaves 2. Animals--oral	Have student make a chart of similarities and differences between plants and animals.
		II. Characteristics of living things A. Mobility B. Respiration C. Nourishment D. Growth E. Offspring	
		III. Characteristics of non-living things	FIELD TRIPS Audubon Society Museums
		IV. Common Animal Groups A. Mammals B. Birds C. Reptiles D. Fish E. Amphibians F. Insects	Stress the fact of people as superior animals. Build and stock a hatchery.
		V. What is necessary for plants and animals to live A. Air B. Water C. Food	Build a terrarium. Bring living and non-living things to class. Grow plants in the room. Keep animals in the room. Have students share in the responsibilities of care and feeding of both plants and animals.

GENERAL SCIENCE I

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
CELESTIAL BODIES	The student will be able to understand the structures, functions, and characteristics of celestial bodies.	I. The Sun	Visit the Museum of Science and Industry.
		A. The sun is a fiery ball of hot gases, much larger than the earth.	Place a match head on a Pyrex pie plate and use a magnifying glass to focus the sun's rays on the match head.
		B. All energy comes from the sun. 1. Light 2. Heat	
		C. Kinds of Energy 1. Muscle 2. Wind 3. Water 4. Electric 5. Steam 6. Atomic 7. Gasoline 8. Coal	
		D. What are fuels? Kinds of fuels: 1. Coal 2. Wood 3. Oil 4. Gas 5. Food 6. Alcohol	Read newspaper articles on space travel. Collect samples of various types of fuels. Read encyclopedia. Read periodicals.

GENERAL SCIENCE I

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
CELESTIAL BODIES (continued)		II. Day and Night A. Why we have daylight and darkness 1. The sun lights the earth 2. The earth is shaped like a ball 3. The earth rotates on its axis	FIELD TRIPS Visit a planetarium Visit a generation station Observe shadows that are formed when the student's back is to the sun, at different times of day.
		B. The rotation of the earth on its axis causes day and night. 1. A 24-hour day is the time it takes the earth to make one complete rotation 2. Because the earth is round, only one-half of it is lighted by the sun at once	
		C. Time 1. The sun can be used for determining time 2. When the sun is highest in the sky, it is 12:00 noon 3. The position of the sun and stars can tell us what time it is. 4. A year is the time it takes the earth to travel or revolve around the sun. a. Each year is divided into four seasons b. Summer days have more hours of daylight than winter days	Chart the sun's position at various times during the day.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
CELESTIAL BODIES (continued)		III. Heavenly Bodies	
		A. What is a star? 1. Each star is a glowing ball of gases 2. Most of the stars are bigger than the sun	Observe morning and evening stars. Note the time of their appearance and their position.
		3. Stars are much further away from the earth than the sun	Look for star constellations at night.
		4. Stars have different colors because they differ in temperatures	Follow any current national space launches.
		5. A group of stars is a constellation	Collect materials on former U.S. space launches.
		B. What is the moon like? 1. The moon is the earth's biggest satellite	Look for "shooting stars."
		2. There are mountains, valleys and plains on the moon; it is a huge ball of rock 3. There are no living things on the moon because there is no air or water 4. How the moon is different from the stars: a. Is not hot b. Cannot give off light c. Moonlight is reflected sunlight.	

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
CELESTIAL BODIES (continued)		III. Heavenly Bodies (continued) B. What is the moon like? (continued) 5. Why does the moon seem to change shape? a. The sun lights only half of the moon at one time. b. The moon appears to change shape because we cannot see all of its lighted parts all of the time. c. The moon goes through its changes in shapes about once every 28 days. 6. The moon travels around the earth in its orbit. 7. Tides a. The moon has gravity, much weaker than that of the earth, which pulls the waters of the earth into a tide. b. High tide is on the side of the earth facing the moon.	

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
CELESTIAL BODIES (continued)		III. Heavenly Bodies (continued) C. What is a planet? 1. A planet travels around the sun. 2. A planet does not give off light; it reflects light. 3. There are nine known planets. 4. The earth is a planet. 5. The planets vary in distances from the sun. 6. Life on the planets a. Planets must have air and water before it can have living things. b. It is not known whether or not there are living things on other planets, but speculation indicates life exists on some planets. D. What is gravity? 1. Gravity is the pull of the earth. 2. Everywhere the pull of gravity is toward the earth. 3. Gravity gets weaker as you get further out from the earth, but it never stops altogether. 4. The earth's greater pulls on its satellites.	Make a chalkboard diagram of the sun and the planets. Read about conditions on other planets and discuss the possibility of life, as it exists on earth, on those planets.

GENERAL SCIENCE I

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
MAGNETS	The student will be able to understand the principle and function of a magnet.	I. Kinds of Magnets A. Bar B. Horseshoe C. U II. Kinds of things that magnets will pick up. A. Magnets attract iron and steel. B. Materials that can be picked up by a magnet are called magnetic materials. C. Materials that cannot be picked up by a magnet are called non-magnetic materials. D. The pull that a magnet has is called its force. E. The force of a magnet can act at a distance from the magnet to pull things to it. III. Compass A. The needle of a compass is a magnet. B. A compass is used to tell direction on earth.	Determine what materials a magnet will attract. Use magnets to demonstrate these functions. Learn how to read a compass. Show magnetic fields and lines of force using a cardboard or window glass over a bar magnet, and sprinklings of iron filings. Make a temporary magnet by stroking a large iron nail from end to end with a strong bar magnet (stroke slowly and gently in one direction only).

GENERAL SCIENCE I

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ELECTRICITY	The student will be able to understand principles of electricity.	I. Electric Circuits (Current) A. Electric current will flow only when there is a closed circuit. B. Electric current always follows the shortest possible path. When electric current leaves its intended path and follows a shorter one, a short circuit is produced. C. Electric current flows through conductors but not through insulators. D. Electric current can be controlled by switches and transformers. II. Electricity and Energy A. How electricity is produced 1. Chemical change 2. Generators using energy of a. Water b. Steam c. Wind d. Exploding gas e. Friction B. How electricity is used 1. To generate heat 2. To generate light 3. To generate power to move things 4. To make a magnet	Repair old lamps, cords, etc., in class. Demonstrate an electric current with dry cells. Demonstrate some effects of static electricity. Make a simple electric cell. Have students make a list of all the appliances they can think of that make use of electricity.
	The student will be able to understand how to make electrical repairs.	III. Minor Electrical Repairs	

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ELECTRICITY (continued)	The student will be able to understand the safety rules relating to electricity.	IV. Thunderstorms and Static Electricity A. Making electric charges B. Electric sparks 1. Lightning 2. Safety in lightning	Have students read about and report on how lightning and thunder are produced.
		V. Safety and Electricity A. Safety rules for using electrical appliances 1. Disconnect electrical appliances when they are not being used. 2. If there is a switch on an electrical appliance, turn it off before you disconnect the appliance. Also be sure the switch is turned off before you connect the appliance. 3. Never use an electrical appliance or an electric cord that you know is out of order. 4. Never try an experiment with an electrical appliance or an electric cord that is connected to the current in your home. 5. Never touch an electrical appli appliance with wet hands. Also be sure not to touch it if any part of your body is against a water pipe, faucet, or radiator.	Invite an electrician to discuss safety precautions while "on the job." Have students demonstrate safety rules with household appliances.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ELECTRICITY (continued)	The student will be able to understand the safety rules relating to electricity.	V. Safety and Electricity (continued) B. Safety rules for using electric wires. 1. Never touch electric wires or use an electric cord on which the covering is worn. 2. Keep electric wires and cords from rubbing against things or becoming kinked. Rubbing may wear off the covering, and kinking may break it. 3. Stay away from broken wires that hang down from poles or buildings. 4. Never climb a pole that supports electric wires. 5. Never touch an electric wire or cord with wet hands. Also do not take hold of a wire or cord while any part of your body is touching a water pipe, faucet or radiator.	

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ELECTRICITY (continued)		V. Safety and Electricity (continued) C. Safety rules for using fuses. 1. Never try to repair a "burned-out" fuse. Use a new one. 2. When a fuse "burns out", always put in a new fuse that will carry the same current. If the old fuse is labeled 14A, the new fuse should be labeled 15A. 3. Never try to use a penny instead of a new fuse. The penny is made of copper. It will not melt until the copper wires do too. 4. Always turn off the current when you put in a fuse. Otherwise you may get an electric shock. 5. Never stand on a damp floor in the basement when you put in a new fuse. Stand on a dry board. D. Safety rules for using switches 1. Have a switch repaired at once if you get a shock when you use it to turn current on or off. 2. Never touch a switch with wet hands. Also do not touch a switch when any part of your body is against a water pipe, a faucet, or a radiator.	Have students make either one composite list or several individual lists of safety rules for using and handling electric appliances, wires, switches, and fuses.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ELECTRICITY (continued)		V. Safety and Electricity (continued) E. Safety rules for using electric heaters 1. Never use a knife, fork, or spoon to get bread out of an electric toaster while it is turned on. You may get a shock or a burn, or you may cause a short circuit. 2. Do not use a damp cloth to clean the outside of an electric heater while it is turned on. Disconnect heater and wait until it cools. 3. Do not go away and leave an electric iron connected. It may set the ironing board on fire. 4. Do not hang wet clothes on an electric heater to dry. You may cause a short circuit or even a fire. 5. Never touch an electric heater while you are in a tub or when any part of your body is touching a water pipe, a faucet, or a radiator. Many people have been killed in this way. 6. If you use an electric heating pad, be sure that it has a waterproof cover. Otherwise you may get a shock if perspiration soaks into it.	

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
MACHINERY	The student will be able to understand basic machines and their functions.	I. The six simple machines A. Lever B. Wheel and axle C. Pulley D. Screw E. Wedge F. Inclined Plane II. What runs our machines A. Muscle Power B. Wind C. Water D. Electric Power E. Steam Power F. Engines 1. Atomic energy 2. Gasoline 3. Diesel	Construct duplicates of the six simple machines. Have the students identify the simple machines that compose compound machines, i.e. can opener, pencil sharpener, scissors, water faucet.
	The student will be able to understand the safety rules relating to machines.	III. Safety rules for using machines A. Use goggles whenever using machines B. Have a place for each machine and put it back in its place when you are through using it. C. Never leave tools on a stairway. D. Have a place for brooms and mops where they cannot fall across a passageway. E. Set heavy tools where they cannot fall on someone. F. Put knives and other sharp tools away with sharp edges pointing away from the person who will next pick them up.	Have the students demonstrate safety rules when using machines.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
MACHINERY (continued)		III. Safety rules for using machines (Continued) G. Do not run with a pointed tool, such as a knife or a pair of scissors. H. Always cut away from yourself when using a sharp tool. I. Lay garden tools on the ground so that the sharp parts are pointing downward. J. Be careful when you use machines with wheels, belts, and gears, such as electric fans, sewing machines, and clothes wringers. K. Keep your fingers away from wheels and gears when they are moving.	

BIOLOGY II

BIOLOGY II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
LIFE AND OBJECTS	The student will be able to explain relationship between living and non-living things.	I. Two Groups of Things in the World A. Living (alive now or was alive at one time) B. Non-Living (never was alive) II. How All Things Are Alike A. Can move B. Can breathe C. Needs food D. Can grow E. Can have young like themselves III. How All Non-Living Things Are Alike A. Cannot move B. Cannot breathe C. Do not need food D. Cannot grow E. Cannot have young like themselves	Have students make a chart of contrasts between living and non-living things. Collect different plants and animals in your locality and place them into groups. Study the microscope. Study one-cell animals from a nearby pond.
		IV. The Two Big Groups of Living Things A. Plants 1. Parts a. Roots b. Stems c. Leaves d. Flowers e. Seeds	Make a collection of actual roots; show the different uses of roots. Use a magnifying glass to examine parts of plants. Field Trip to an Arboretum. Make leaf prints.

BIOLOGY II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
LIFE AND OBJECTS (continued)		IV. The Two Big Groups of Living Things (continued) A. Plants (continued) 2. Groups a. Have seeds b. Do not have seeds B. Animals 1. Mammals 2. Birds 3. Reptiles 4. Fish 5. Amphibians 6. Insects 7. Other groups	Soak a lima bean in water overnight. Remove and examine the transparent seed coat. Use magnifying glasses. Collect and examine algae. Visit a wildlife preserve. Collect or grow bacteria. Collect and observe a variety of types of animals. Keep live insects.
	The student will be able to identify the life processes of organisms.	V. How Things Are Grouped VI. Needs of All Living Things A. Air B. Water C. Food	
		VII. Living Things Depend Upon Non-living Things	Make a woodland or desert terrarium. Mount and display insects.
	The student will be able to explain relationship between organisms and their physical environment.	VIII. Climatic Conditions and Their Affect On Life IX. Meaning of: A. Cells B. Tissues C. Organs D. Systems	Set up a classroom aquarium. Raise Tadpoles. Have the students make a chart showing the relationship between cells, tissues, organs, systems.

BIOLOGY II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ANIMALS	The student will be able to understand the life processes and characteristics of animals.	I. Important Characteristics of Commonly Observed Animal Groups A. Mammals B. Birds C. Reptiles D. Fish E. Amphibians F. Insects II. Animals' Needs A. Food B. Water C. Air D. Shelter III. New Animals - Birth and Habitat A. All living things originate from similar species. 1. All living things have a natural habitat. 2. Some animals hatch from eggs laid by the mother. 3. Some animals grow inside the mother's body. B. All life begins as a single cell.	Make animal collections. Observe bee hives and ant colonies. Prepare a scrapbook of animals. Prepare charts of: Birds (Audubon Center) Animals Food Chains FIELD TRIPS Museum of Natural History Children's Farm Pet Shops Fertilizer Plant Animal Shelter Wooded Areas Farms Zoo

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ANIMALS (continued)	The student will be able to understand the interrelationships of plants and animals.	IV. Interrelationships of Plants and Animals A. How Animals Help Each other 1. Socialization 2. Helpful 3. Families 4. Joining for hunting and protection 5. Are food for others B. How Plants Help Animals 1. Food She 2. Shelter 3. Camoflage C. How Animals Help Plants 1. Bees carry pollen 2. Birds eat destructive insects 3. Earthworms cultivate soil 4. Animals scatter seeds 5. Worms nourish the soil D. How Plants Harm Animals 1. Some are poisonous to animals 2. Some capture animals for food 3. Some cause disease in animals E. How Animals Harm Other Living Things 1. Animals use either plants or other animals for food. 2. Insects are enemies of plants and animals	Observe which animals eat or are eaten by other animals. Obtain and show films.
	The student will be able to understand some basic ecology principles.	V. Conservation A. Laws B. Control of Harmful Animals	

BIOLOGY II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
PLANTS	The student will be able to understand the identification, structure, and function of plants.	I. Identification of Common Local Plants A. Trees B. Shrubs C. Flowers D. Fruits E. Vegetables F. Grains G. Harmful Plants 1. Poison Ivy 2. Poisonous mushrooms 3. Bacteria 4. Others	FIELD TRIPS Museum of Natural History Nearby woods Have students plant some seeds in the classroom and watch them grow.
		II. Structure and Functions A. Roots 1. Grow longer by growing at ends 2. Water and dissolved minerals get into the roots through root hairs B. Stems 1. Grow longer by growing at ends 2. Grow thicker a. Add layers of wood b. Growing all through inside 3. Carry food materials between roots and leaves	Make seed, leaf, and grain collections. Dissect a large seed to study the parts. Grow bacteria. Study plant parts under a microscope or bioscope. Perform experiments on seed growth related to environment. Allow celery stalk to stand in water (with red coloring) overnight; observe the next day.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
PLANTS (continued)		II. Structure and Functions (continued)	
		C. Leaves	Collect and examine leaves.
		1. Air and water a. Air gets into the plant through openings in the leaves and to roots through the earth b. Water and dissolved minerals get from the roots to the leaves through tubes in the stems and leaves	Note changes in leaf color during the fall; associate the change in color with the kind of tree.
		2. Green leaves make food a. Chlorophyll b. Sunlight c. Chemical changes occur	
		3. Food made by green leaves is dissolved and carried in sap to all parts of the plant a. Growing and making new parts b. Stored roots, stems, or seeds	

BIOLOGY II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
PLANTS (continued)		II. Structure and Functions (continued)	Obtain a large simple flower and examine closely.
		D. Flowers	
		1. Plants use flowers to make seeds from which new plants will grow	Obtain a peach seed and an almond in the shell; compare appearance of the two stones. Break each open and compare the size, shape, and taste of both seeds.
		2. Parts: a. Sepals b. Petals c. Pistil d. Stamens e. Pollen grains	Display specific examples of kinds of fruits.
		E. Seeds	
		1. Three parts a. Tiny new plant b. Food stored around it c. Seed coat protects	
		2. Part of the plant that contains seed is the fruit	

BIOLOGY II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
PLANTS (continued)		III. How Plants Grow and Toward Water A. Roots grow down. B. Stems grow up. C. Stems and leaves grow toward light.	Have students build, furnish, and care for a greenhouse (These may be very small, but operate on the same principles).
	The student will be able to identify life processes of organisms (plants).	IV. Needs of Plants for Growth A. Soil B. Air C. Water D. Sunlight E. Nutrients	Invite a horticulturist to speak with the students.
		V. How Plants Help Each Other A. Some Furnish food or water for others. B. Some furnish food and protection for others. C. Some climb on others. D. Decayed plants enrich soil.	Invite a forest ranger to speak with the students.
	The student will be able to understand some basic principles of ecology.	VI. Conservation A. Protection of forests and wild plants B. Fire prevention C. Disease control D. Flood control	

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
THE HUMAN BODY	The student will be able to understand basic body function and structure.	I. Systems of the Body--Their Functions and Important Organs	
		A. Skeletal (Holds up the body and gives shape) 1. Backbone or spine 2. Spinal cord 3. Cartilage 4. Ligaments 5. Skull and Brain	Examine an animal bone. Examine a ligament. Have students make an anatomy book of work they cover in class. Include drawings of all systems.
		B. Muscular 1. Joint (example: elbow) 2. Ligaments 3. Muscles (work in pairs)	Compare the human body to eye specimen and organs from animals. Obtain free visual aids from Dairy Council
		C. Digestive 1. Mouth--teeth break up food and chew it into small bits a. Cutters b. Grinders 2. Food tube 3. Stomach 4. Small intestine 5. Large intestine	Locate body tendons. Draw a diagram of teeth. FIELD TRIPS Slaughter House Museum of Natural History Hospitals Nursing Homes
		D. Circulatory 1. Blood vessels 2. Heart 3. Blood	Using a chart showing all the organs of the digestive system, have the students trace the digestion of food. Describe the functions of each organ.
		E. Respiratory 1. Nose 2. Windpipe 3. Lungs	Trace the circulation of blood on a diagram. Examine an animal heart. Measure your pulse beat.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
THE HUMAN BODY (continued)		I. Systems of the Body--Their Functions and Important Organs (continued) F. Skin 1. Keeps out: a. Water b. Dirt c. Germs 2. Pores--small openings 3. Perspiration (waste materials)	Obtain a chart or draw a diagram showing the cross-section of the skin; discuss the function of each constituent of the skin. Discuss importance of adolescents keeping facial skin clean and oil-free.
		G. Sensory 1. Sight (eye) 2. Hearing (ears) 3. Smell (nose) 4. Taste (mouth) 5. Touch (outer surface)	Use charts and models of sensory organs.
		H. Nervous 1. Brain (does thinking) a. Conscious b. Subconscious 2. Nerves (carry messages--oneway) 3. Senses 4. Spinal Cord	Obtain a chart showing the human nervous system; observe major nerves.
		I. Excretory 1. Kidneys 2. Bladder	Obtain an animal kidney; note size and shape. Cut lengthwise and make observations.
		J. Reproductive 1. Male 2. Female	Locate the various glands on a diagram and discuss the function of each.
		K. Endocrine	

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
THE HUMAN BODY (continued)	The student will be able to demonstrate knowledge of good nutrition.	II. Uses of Food	Invite a dietician to discuss uses of food.
		A. Growth	
		B. Prevention of Disease	
		C. Healthy Teeth and Bones	
		D. Energy and Heat	
		III. Kinds of Foods	Have students keep a record of food intake; calculate calorie counts, and discuss if they are eating a balanced diet.
		A. Milk	
		B. Meat	
		C. Vegetables and Fruits	Practice writing menus which are both economical and nutritive.
		D. Wheat and Oats	
		IV. Basic Contents of Foods	Test foods for the presence of simple sugars, starches, fats, proteins, minerals, and water.
		A. Carbohydrates	
		1. Starch	
		2. Sugar	
		B. Fats	
		C. Proteins	
		D. Vitamins	
		E. Minerals	
		F. Water	

HEALTH AND SAFETY III & IV

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
SAFETY AND FIRST AID	The student will be able to understand basic knowledge of safety rules and procedures.	I. Safety A. Safety at Home 1. Causes of Accidents a. Carelessness b. Hurrying c. Anger or upset feelings 2. Types of Accidents a. Falls b. Burns 3. Places of Accidents a. Stairways b. Kitchen c. Other rooms in home d. Places outside home (yard, steps, porch, garage) B. Safety at School 1. In the gym a. Following rules for use of gym and equipment b. Use of safety equipment 2. Yard--free yard from obstacles and rubbish 3. Inside school building a. Walking in halls b. Walking on stairs c. Fire drills d. Equipment in special rooms (1) Science (2) Industrial arts (3) Home economics	Make a safety and first aid book as a class project. Make a list of safety rules for the home; for the school; for various areas of the building. Have students prepare safety posters for the school which direct people in case of emergencies.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
SAFETY AND FIRST AID (continued)	The student will be able to apply first aid.	II. First Aid A. Bleeding B. Artificial respiration C. Poisoning D. Burns E. Broken bones F. Eye and Head Injuries G. Shock H. Animal Bites I. Bandage Work	Invite an ambulance orderly to discuss first aid procedures used in emergency cases. Have students discuss ways of handling common emergencies in the home. Role play those situations. Visit a hospital emergency room.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
CARE OF OUR BODY	The student will be able to demonstrate knowledge of personal health care.	I. How to Care For:	Invite a dentist or dental hygienist to speak to the students.
		A. Teeth 1. Eat Proper foods 2. Brush often a. Prevents decay b. Makes mouth comfortable c. Brush thoroughly d. Brush in direction in which teeth grow e. Brush at least 3. Rinse mouth with water if it is not possible to brush 4. Visit dentist regularly a. Cleans teeth more thoroughly b. Checks for early signs of decay or other trouble	
		B. Eyes 1. Natural protection a. Bony eye sockets b. Eyelids c. Eyelashes d. Eyebrows e. Tears 2. Protections against a. Eyestrain b. Accidents 3. Use of glasses if necessary a. Nearsightedness b. Farsightedness	Obtain models, diagrams, and charts to use class discussions. Have students demonstrate proper health care (in feasible situations).

HEALTH AND SAFETY III & IV

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
CARE OF OUR BODY (continued)		I. How to Care For: (continued) C. Ears 1. How to clean 2. Have a doctor remove wax if necessary. 3. How to blow nose a. Blow gently b. Leave nostrils open 4. Treat earaches promptly D. Feet 1. Bathe feet once a day and dry thoroughly. a. If skin is chapped, rub with baby oil. b. If feet perspire freely, use foot powder. 2. Trim toe nails straight across. 3. Wear properly fitted shoes. 4. Common foot troubles. a. Corns and calluses b. Ingrown toenails c. Bunions d. Athlete's foot	
	The student will be able to understand and exhibit basic hygiene.	II. Personal Health Habits A. Cleanliness 1. Hair 2. Skin B. Fatigue 1. Rest 2. Sleep C. Exercise D. Recreation E. General Appearance 1. Make-up 2. Posture 3. Clothing	Discuss individual differences in terms of general appearance, metabolism, amount of rest needed, etc. Do group exercises and recreational activities. Assist the students in developing flattering tastes for themselves in term of make-up, clothing styles, etc.

HEALTH AND SAFETY III & IV

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
PEOTECTION OF THE BODY	The student will be able to understand the principle of bacteria growth and germs related to illness.	I. Bacteria	
		A. Bacteria and other germs are all around us.	
		B. Bacteria multiply very rapidly.	
		C. When some bacteria get into the body, they can cause chemical changes that result in illness.	
		D. Bacteria can be grown by supplying: 1. Food 2. Warmth 3. Darkness	Lecture by a dietician or school nurse. Perform experiment on growing bacteria.
		E. Control of Bacteria 1. Pasteurization 2. Sterilization	
		II. How Germs Get Into the Body	
		A. Openings 1. Nose 2. Mouth 3. Breaks in the skin	
		B. Germs are Carried in Cough or Sneeze of Sick Person	
		C. Germs are on Fingers, Pencils or Other Items Which May be Put Into the Mouth.	

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
PROTECTION OF THE BODY (continued)		III. How the Body Fights Germs A. Protection 1. Skin 2. Mucous Membrane B. White Corpuscles 1. Weapons of the Body 2. In Blood--Work to Kill Germs C. Body Fights Germs More Easily When Well and Strong IV. How Scientists Help the Body Fight Germs A. Protection 1. Vaccines Are Used To Prevent the Body From Getting Disease. 2. Serums Are Used to Help the White Corpuscles Fight Disease. B. Antibiotics and Other Drugs Help the Body Fight Disease. V. How to Keep Germs From Spreading A. Keep Water, Milk and Food Pure. B. Clean Up Garbage and Rubbish. C. Work to Control Flies and Mosquitoes. D. Quarantine Persons With Highly Contagious Diseases. E. Thoroughly Clean the Room, Bedding and Dishes Used by a Sick Person.	

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
PROTECTION OF THE BODY (continued)	The student will be able to understand common illness.	VI. Diseases A. Cancer B. Heart Disease C. Mental Illness D. Pneumonia E. Colds F. Flu G. Tuberculosis H. Measles I. Mumps	
		VII. Disease Prevention A. Immunity 1. Natural 2. Acquired B. Health Habits 1. Rest 2. Food 3. Exercise 4. Fresh Air	Visit a hospital to learn about all the services available.
	The student will be able to demonstrate knowledge of health care services.	VIII. Professional Medical Services A. The Physical Check-up B. Services of a Hospital	Have each student undergo a physical exam.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
SEX EDUCATION AND REPRODUCTION	The student will be able to understand physical (sexual) self.	I. Sexual Organs A. Male B. Female	
	The student will be able to understand human sexuality.	II. Reproduction A. Cycle of Female B. How Conception Takes Place	Begin the study by making an incubator (chicken egg experiment).
	The student will be able to understand communicable illnesses.	III. Venereal Disease A. Gonorrhea 1. How acquired a. Sexual intercourse b. Towels or toilet articles used by infected persons c. Eyes of baby may become infected if mother has it 2. Much more prevalent than syphilis 3. Symptoms: Yellowish pus-like discharge from the genital organs. B. Syphilis 1. How acquired a. Sexual intercourse b. Congenitally from parents c. Kissing d. Contact with contaminated objtects 2. Symptoms--stages a. Local sore at point of infection b. More general skin eruption c. Degenerative effects upon tissues and organs of the body	Obtain current films and pamphlets on venereal disease. Show pictures of symptoms and sores indicative of venereal disease. Invite a public health official to inform students of the available free medical attention for venereal diseases.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
NUTRITION	The student will be able to demonstrate knowledge of good nutrition.	I. What Food Does For Us A. Growth B. Disease Prevention C. Healthy Teeth and Bones D. Energy E. Repair II. Four Food Groups and Examples of Each A. Fats (for warmth) 1. Butter 2. Lard 3. Margarine 4. Some Meats B. Carbohydrates (for energy) 1. Starch 2. Sugar C. Proteins (for body-building) 1. Lean Meat 2. Milk 3. Cheese 4. Eggs 5. Fish 6. Some vegetables	Have the entire class make a nutrition book. Keep a list of foods eaten at meals and between meals for a week. Use these lists in discussing the different kinds of foods. Obtain materials from the National Dairy Council. Have all pupils weighed and measured. Discuss the "vitamin fallacy".

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
NUTRITION (continued)		II. Four Food Groups and Examples of Each (continued)	
		D. Vitamins and Minerals	Discuss the intake amounts of various food groups essential for good health.
		1. Milk 2. Eggs 3. Cheese 4. Liver 5. Lean Meat 6. Fish 7. Sea Foods 8. Some Vegetables	
		III. Basic Food Groups	Discuss and practice ways of preparing nutritious foods.
		A. Green and Yellow Vegetables	
		B. Oranges, Tomatoes, Grapefruit, etc.	
		C. Potatoes	
		D. Milk and Milk Products	
		E. Meat, Poultry, Fish, Eggs	
		F. Bread, Flour, Cereals	
		G. Butter and Margarine	

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
NUTRITION (continued)	The student will be able to understand basic body function and structure.	IV. Digestion--simplified A. Process of changing complex foods into simple substances to be used by the body B. In the mouth 1. Food chewed by teeth 2. Tongue and muscles mix food with saliva C. Muscles in esophagus push food toward the stomach D. In the stomach 1. Food from esophagus enters stomach 2. Wavelike motions mix the food with gastric juices 3. Partly digested and partly liquid, the food passes into small intestine E. In the small intestine 1. Further digestion of the food takes place 2. Food moves slowly along coils of the small intestine 3. Allows food to pass into blood stream F. Large Intestine 1. Separation of waste products 2. Serves as a storehouse for undigested food	
		V. Aids to Good Digestion A. Be cheerful at the table B. Eat slowly C. Try quiet activities after eating	Have students demonstrate good eating habits at a group meal prepared by them

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
CONSUMER HEALTH EDUCATION	The student will be able to understand prepared medications.	I. Prepared Medications A. Vitamins B. Skin Medications 1. Acne 2. Eczema 3. Allergies C. Remedies for Foot Conditions 1. Athlete's Foot 2. Corns 3. Calluses 4. Bunions	FIELD TRIP Visit a hospital, medical clinic, or dental office.
	The student will be able to understand and exhibit basic hygiene.	II. Personal Drug Supplies A. Deodorants B. Mouthwashes C. Suntan products D. Hair Dyes, Rinses, and Bleaches E. Other Personal Items	Invite a doctor or nurse to speak to the class. Discuss claims made by unscrupulous advertisers. Discuss ways in which some personal drug supplies may be harmful.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ALCOHOL, TOBACCO DRUGS	The student will be able to understand effects of alcohol, tobacco, and drugs on the body.	I. Alcohol A. Kinds of Alcohol and Their Strengths 1. Fermented 2. Distilled B. How Alcohol Works on the Body 1. Alcohol is absorbed into the body immediately without digesting a. Absorbed more slowly after eating b. Carried by blood to all parts of the body 2. Effects of alcohol on the body a. At low concentrations, does not directly damage organs or tissues b. A depressant 1) Relaxes physical and mental reactions 2) May briefly act as a stimulant 3) Dilates blood vessels at surface of skin giving a momentary feeling of warmth c. Effects depend on: 1) Individual 2) Strength of beverage 3) Amount and kind of food already in stomach 4) When drinking is done 5) Mood at time of drinking	CONTACT: Local University AA Chapter Hospital Personnel Health Department Discuss individual variations in reaction to alcohol. Show slides and films depicting the negative effects excessive alcohol intake has on body organs.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ALCOHOL, TOBACCO, DRUGS (continued)		B. How Alcohol Works on the Body (continued) 3. Food Value a. Limited; calories from alcohol can't be stored or used to build or repair tissues	Invite non-drinking young alcoholics to share problems and life experiences with the group. Provide personal alcoholic counseling, for those students who need it.
		b. Competes with other food 1) Reduced appetite 2) Poor diet induces diseases 4. Diseases Associated a. Beri-beri b. Pellagra c. Cirrhosis of Liver d. Delirium Tremens 5. Tolerance a. No physical tolerance built up b. Psychological tolerance may be built up 6. Real Dangers a. Intoxication b. Accidents C. Kinds of Drinkers 1. Occasional 2. Frequent 3. Regular 4. Alcohol dependents 5. Alcoholics	
		D. Alcoholism 1. An Illness 2. Two factors present a. Emotional difficulties b. Inability to control drink 3. A personality problem 4. Not inherited; tendency may be	Discuss why alcoholism is an illness.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ALCOHOL, TOBACCO, DRUGS (continued)		II. Tobacco--Effects on Body A. Cause of a Persistent Cough in Some People	
		B. On Circulatory System 1. High Blood Pressure 2. Decrease in temperature of fingers and toes	Obtain literature from the research sponsored by the Federal Government.
		C. On Respiratory System 1. Cancer of the lung and other parts of respiratory system 2. Increases cough or asthma 3. Irritant to mucous membranes of respiratory tract 4. Coronary artery disease	Discuss hazards drugs bring to the body.
		III. Drugs	Provide personal drug counseling.
		A. Drugs that Cause Addiction 1. Create so strong a need that the individual cannot voluntarily stop 2. Cause a. Emotional dependence b. Physical dependence	Encourage students to discuss fears and social pressures regarding drug intake.
		B. Two Kinds of Drugs 1. Sedative a. Effects 1) Relieve pain or anxiety 2) Cause mental and physical relaxation 3) Produce sleep	

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ALCOHOL, TOBACCO, DRUGS (continued)		III. Drugs (continued) 1. Sedative (continued) b. Examples 1) Opium 2) Morphine 3) Heroin 4) Barbiturates 5) Bromides 6) Marihuana 2. Stimulant a. Effects 1) Prevent sleep 2) Cause excitement 3) False sense of power 4) Cause illusion that difficulties can be overcome b. Examples: 1) Benzedrine 2) Cocaine C. Why People Become Addicts 1. Necessary factors a. Addicting drug b. Person who allows himself to become addicted 2. Young people--to keep up with the gang 3. Personality problems a. Neurotic 1) An emotionally disturbed person who doesn't like the world or anyone in it. 2) Knows right from wrong; just doesn't care 3) Uses drugs for kicks	Obtain and show current informative films on drugs and drug addiction.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ALCOHOL, TOBACCO, DRUGS (continued)		III. Drugs (continued) D. Harm From Drug Addiction 1. Physical Effects a. Upset performance of body organs b. Decrease in appetite; neglect of food and poor nourishment resulting c. Lowered resistance to disease 2. Indirect Results a. Pain deadened by drugs b. Involved in traffic accidents c. Deadening of sexual instincts; result in failure in marriage d. Diseases passed through needle. 3. Sudden death from overdose	Discuss alternative, more acceptable ways of coping with problems other than drugs.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ALCOHOL, TOBACCO, DRUGS (continued)		III. Drugs (continued) E. Withdrawal Illness 1. Caused when a person stops taking the drug 2. Greatly feared by addicts F. Addicts become criminals to obtain money needed for more drugs 1. Stealing 2. Prostitution G. Addicts are unpredictable 1. Can't Hold jobs 2. Military won't accept 3. Average intelligence and education; below average success 4. Loss of ambition and initiative needed for success	Invite "recovered" addicts to share experiences with the group.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
GROWING IN BODY AND MIND	The student will be able to understand the phases of body growth.	I. Four Phases of Growth A. Physical B. Mental C. Emotional D. Social	Discuss growth patterns--physical, mental, emotional, social.
		II. Physical Growth A. Growing in size 1. Good health 2. Gains in: a. Height b. Weight B. Growth pattern inherited C. Factors Influencing 1. Diet 2. Exercise 3. Sleep	
		III. Mental Growth A. Growth in ability to use mind B. Includes: 1. Getting along with others 2. Accepting responsibilities 3. Learning new things	Provide small discussion groups whereby students have an opportunity to discuss these topics with peers.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
GROWING IN BODY AND MIND (continued)		III. Mental Growth (continued) C. Depends on 1. Intelligence 2. Desire to learn 3. Opportunities to learn	
		D. Ways of Measuring 1. Intelligence tests 2. Achievement tests	Discuss the inaccuracy of many intelligence tests.
		IV. Emotional Growth A. Growth in Using Self-Control	
		B. Emotions 1. Happiness 2. Love 3. Anger 4. Hate 5. Fear 6. Loneliness	Encourage students to release emotions in socially acceptable ways; provide guidance and suggestions in developing these ways.
		C. A continuous process 1. Learn to keep temper 2. Have many interests	
		D. Attitude 1. A manner of acting, feeling, or thinking which reflects opinions. 2. Reflected by way persons react.	Discuss how attitudes affect our behavior. Discuss ways in which attitudes may be changed.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
GROWING IN BODY AND MIND (continued)		V. Social Growth	
		A. Growth in ability to get along with others	
		B. Depends upon 1. Manners--determined by attitudes toward people and things. 2. Appearance a. Posture b. Food c. Exercise d. Rest 3. Self-confidence	Provide non-threatening social situations which afford students an opportunity to develop necessary social skills.
		C. Learning to make adjustments to changing situations	
		D. Emotional and social growth are necessary in order to become a mature person.	

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
PERSONALITY--HOW TO WIN FRIENDS	The student will be able to understand personal roles in many situations.	I. Relationships	
		A. Family 1. Cooperation 2. Sharing 3. Planning 4. Good manners begin at home 5. Members of a happy family live, work and play together. 6. Duties and responsibilities of the home should be shared by all 7. Self-control a desirable trait of a mature person	Encourage students to discuss their family life--things which they like and don't like, and ways it might realistically be changed.
		B. School 1. Have a study schedule 2. Be able to accept failure along with success 3. Attitudes and habits	
		C. Friends 1. Be pleasant 2. Be dependable 3. Take interest in others 4. Be neat and clean 5. Be helpful and courteous	Provide guidance and suggestions on how to develop friendships.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
PERSONALITY-- HOW TO WIN FRIENDS (continued)	The student will be able to understand character traits needed for acceptance by others.	II. Characteristics to Develop A. Dependability 1. Accepting Responsibilities 2. Gaining satisfaction by meeting responsibility 3. Keeping word 4. Accepting both success and failures B. Good manners 1. Manners--rules of behavior 2. Give poise and confidence 3. Add to popularity and happiness 4. At school a. Obey school rules b. Cheerful and friendly c. Control temper d. Show good sportsmanship 5. In community a. To and from school b. People form opinions about you 6. In public a. On a bus b. In a store c. Theaters or movies d. On sidewalks e. Bad manners 1) Chewing gum 2) Filing nails 7. Introductions a. Ability to help two people to know each other b. Behavior during	Provide a variety of realistic situations wherein students feel comfortable in working on the development of their personal characteristics.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
PERSONALITY-- HOW TO WIN FRIENDS (continued)		II. Characteristics to Develop (continued) B. Good Manners (continued) 8. At table a. Manner of eating b. Neatness c. Cheerfulness d. Asking to have something passed e. Elbows in f. Serving self from dish C. Consideration 1. Pick up after self 2. Ask permission in borrowing 3. Respect rights of others	

HEALTH AND SAFETY III & IV

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
COURTSHIP, DATING, MARRIAGE	The student will be able to understand how to establish close relationshops.	I. Factors Leading to a Happy Marriage A. Ability to Love B. Readiness for Marriage C. Wise Choice of a Mate D. Willingness to Work Hard to Make the Marriage Successful	Invite a marriage counselor to share with the group. Provide many opportunities for small group discussions.
		II. Kind of Person an Individual is as a Factor in Successful Marriage A. Hereditary 1. Intelligence 2. Abilities 3. Appearance B. Environment 1. Experiences 2. Parents 3. Friends 4. Teachers 5. Attitudes	Interview happily married couples.
		III. What is Love? A. Four Stages 1. Love of self 2. Love for parents 3. Friendship with playmates 4. Love for members of the other sex	Discuss the differences and similarities in the kinds of love.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
COURTSHIP, DATING, MARRIAGE (continued)		III. What is Love? (continued) B. Love between husband and wife 1. A combination of the four types of love 2. Foundations of enduring love a. Companionship b. Physical compatibility	
		IV. Factors Determining Readiness for Marriage A. Emotional Maturity 1. Participating in Social Activities 2. Developing hobbies 3. Developing skills in homemaking 4. Seeking competent advice B. Other Considerations 1. Making a living 2. Completing education 3. Age 4. Willingness to consider welfare of other person above all else.	Discuss personal assessment in terms of readiness for marriage.
		V. Factors to Consider in Selecting a Mate A. Social approval B. Security C. Conformity in dress and manners D. Affection E. Sex F. Confidant	

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
COURTSHIP, DATING, MARRIAGE (continued)	The student will be able to demonstrate knowledge or responsibilities involved in marriage.	VI. Basic Considerations in Marriage A. Companionship B. Social Life C. Security D. Working Wife E. Balancing Budget	Role play situations which may cause difficulties; suggest solutions for compromises.

A SUGGESTED COURSE OUTLINE
FOR TEACHERS, COUNSELORS, COORDINATORS, AND JOB COACHES
OF CHRONIC-DISRUPTIVE YOUTH

MATHEMATICS SECTION

Compiled by

Dr. Sidney Miller
Dr. David Sabatino
Dr. Charles Sloan

October, 1975

A COURSE OUTLINE
FOR TEACHERS, COUNSELORS, COORDINATORS, AND JOB COACHES
OF CHRONIC-DISRUPTIVE YOUTH

MATHEMATICS SECTION

ST. CHARLES, ILLINOIS

Forward

The mathematics units are designed to encompass the vary practical concepts necessary for the chronic-disruptive youth to become contributing members of society. In most instances, it is intended that each person be able to demonstrate a basic, workable grasp of the simpler concepts used in everyday living. More advanced mathematical concepts are included in the study content for those persons who desire and/or need additional knowledge.

COURSE OUTLINE

MATHEMATICS

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MATHEMATICS OUTLINE OVERVIEW

The Mathematics Program should be programmed to the varied abilities of the disruptive youth. Arithmetic for such youth, chiefly uses of time, money, and measurement, is influenced more by social maturity than by mental maturity. This math program emphasis has arithmetic experiences which are related to family, school, and community living requirements.

The Program for disruptive youth in high school is not segmented into four separate years of work. It includes topics which seem most important in the work-training program. Due to the need for repetition, no provision delineating the sequence of the content has been made. Assessment proficiency and grouping within classes is to be considered more desirable than segmenting of math concepts and skills.

MATHEMATICAL SKILLS RELATED TO JOB ENTRY AND JOB PERFORMANCE

Because of the wide variety of ability and achievement levels that are dealt with in educating the chronic-disruptive youth, it is very impractical to assess job-related academic skills to each level of the mathematical study content. Listed below is a table of each skill and the percentage of workers (based on 34 occupations) who have used these skills. This information is based on the Generic Skills Study cited in chapter four.

The first column states the percentage of those who have used the skill upon entry to their job, and the last column gives the percentage of workers who have used the skill while on the job.

The Number System	Job Entry	On Job
Counting	98%	99%
Reading and Writing Numberals	98%	99%
Rounding Off Numerals	85%	85%
Computation Processes	94%	95%
Fractions		
Reading Fractions	77%	78%
Writing Fractions	77%	77%
Addition and Subtraction	72%	73%

MATHEMATICAL SKILLS RELATED TO JOB ENTRY AND JOB PERFORMANCE (continue

Decimals	Job Entry	On Job
Reading Decimals	82%	84%
Writing Decimals	81%	82%
Addition and Subtraction	76%	77%
Multiplication and Division	72%	74%
Rounding Off	70%	72%
Reading Percents	68%	71%
Writing Percents	66%	70%
Calculating Percent	58%	62%
Problem Solving; practical application	40%	46%
Measurement		
Estimating Length	35%	45%
Meters	8%	14%
Grams	4%	8%
Liters	5%	8%
Conversion--Metric to English	3%	5%
Measuring Time	46%	61%
Reading Postage Scales	15%	72%
Graphs, Tables, and Charts		
Use of Graphs	14%	22%
Record Information From Graph	6%	11%
Construct Graphs	5%	9%
Blueprint Reading	27%	40%
Measuring From Scales	16%	27%
Draw Scales	9%	15%

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MATHEMATICAL SKILLS RELATED TO JOB ENTRY AND JOB PERFORMANCE (continue

Geometric Concepts	Job Entry	On Job
Recognize Basic Shapes	40%	42%
Draw Basic Shapes	26%	32%

BASIC MATHEMATICAL CONCEPTS

BASIC MATHEMATICAL CONCEPTS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
THE NUMBER SYSTEM AND NUMERATION		I. Set Notation A. Sets	Classify objects (tools) in sets.
		B. One to One Correspondence	One set of clothes per person (each day).
	The student will be able to read and write whole numbers.	II. Counting and Order	
		A. Reading Numbers	Use manipulative devices to illustrate place value 1) Hundreds chart 2) Open-end abacus 3) Centimeter rods
		B. Writing Numbers	
		C. Even and Odd Numbers	
		D. Skip Counting	Group objects by 1's, 10's, 100's, etc.
	The student will be able to understand place value.	III. Place Value A. 0 as a Place Holder	Make tally of class inventory in large quantities, grouping in 10's, 100's, etc.
		B. Reading and Writing Multiple Digit Numbers	
		C. Grouping by 10's, 100's, and 1,000's	Discuss the idea of numerical order, less than, equal to, and greater than.
		IV. Number Relationships A. Inequalities (expressed and written in number sentences) 1. $7 > 6$ (greater than) 2. $6 < 7$ (less than)	Discuss the need for number order in our society.
		B. Equations (expressed as number sentences $3 + 4 = 7$)	

BASIC MATHEMATICAL CONCEPTS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
THE NUMBER SYSTEM AND NUMERATION (continued)		V. Roman Numerals A. Reading B. Writing C. In Relation to Number System	Play games, making tally in Roman Numerals.
	The student will be able to round off numbers.	VI. Rounding Off Numbers	Make problems that are relevant to everyday living.
		VII. Data Tallying	

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BASIC MATHEMATICAL CONCEPTS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
OPERATIONS WITH WHOLE NUMBERS	The student will be able to add and subtract sets of numbers. The student will be able to solve problems using addition and subtraction.	I. Addition A. Mastery of Basic Addition Facts B. Addition with multiple digits and addends C. Addition with regrouping D. Checking Addition E. Estimating Sums F. Basic Principles 1. Associative 2. Commutative G. Practical Story Problems	Compute grocery costs using newspaper ads. Use objects to demonstrate. Be able to symbolize additive situation (+). Sums by grouping. Stress adding where quantities must be the same (i.e., 503 cents plus $2 is added by 503 cents plus 200 cents) Balancing inventory type activities. Use number lines such as rules and meter stick. Play games where it is essential to add (i.e., bowling, card games).
	The student will be able to estimate answers.	II. Subtraction A. Readiness Activities 1. Counting backwards 2. Inverse of Addition B. Uses 1. Finding number left 2. Finding number more needed 3. Making change 4. Comparing C. Mastery of basic facts D. Subtraction with and without regrouping E. Subtraction with multiple digits F. Checking subtraction G. Practical story problems.	Discuss ways we use subtraction in every day life. Balancing check books. Symbolize subtraction operation with (-) sign. Determine if addition or subtraction is the operation used in story type problems. Have students explain why. Paying off loans as repeated subtraction. Addition type problem: Robert has 10 telephones installed on Monday, 3 on Tuesday and 11 on Wednesday. How many telephones has he installed so for this week. Subtraction type problem: Robert has to install 10 telephones. On Monday in the morning he installed 7. How many more does he have to install?

BASIC MATHEMATICAL CONCEPTS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
OPERATIONS WITH WHOLE NUMBERS (continued)	The student will be able to multiply and divide pairs of numbers. The student will be able to solve problems using multiplication and division. The student will be able to factor whole numbers.	III. Multiplication A. Multiplication as repeated addition B. Mastery of basic multiplication facts C. Multiplication Identity A x 1 = A D. Multiplying by 2- and 3-digit numbers E. Multiplication as equivalent sets F. Factorization G. Basic Principles 1. Order (commutative principle for multiplication) 2. Grouping (associative principle for multiplication) H. Zeros in multiplication I. Multiplying by 10, 100, 1000 J. Estimations K. Practical Story Problems	Grouping objects to build multiplication background. Know multiplication symbol (x). Use 10's, 100's, and 1000's to count to multiples of 10,000. Compute cost of materials 1) Buying in quantity 2) Buying separately Preparing food in quantities. Exercises in problem solving relevant to a working atmosphere.

BASIC MATHEMATICAL CONCEPTS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
OPERATIONS WITH WHOLE NUMBERS (continued)		IV. Division	Use manipulative devices to illustrate ideas of division.
		A. Division Readiness	Be able to symbolize division sign (÷).
		1. Division as: a. Repeated subtraction b. Inverse of addition by sets c. Inverse of multiplication	Learn to compute averages Temperature Height Rainfall
		2. Use of Division a. Finding number of times one unit is contained in another	Daily batting averages Daily pay scale
		b. Finding a part of a number	Division in giving each person an equal part.
			Computing costs per foot of materials.
		B. Mastery of Basic Facts C. Short Division Without Renaming	Estimating prices for contracting.
		D. Renaming E. Long Division (remainders) F. Zero in Division G. Identity (A ÷ 1 = A) H. Using 2-digit Divisors I. Multiplication as a Check for Division J. Estimations K. Practical Story Problems	

BASIC MATHEMATICAL CONCEPTS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
FRACTIONS	The student will be able to read and write fractions.	I. Fractions as Parts of a Whole A. Meanings of 1. 1/2 2. 1/3 3. 1/4 4. 1/6 5. 1/8 B. Terminology 1. Numerator 2. Denominator 3. Proper-Improper 4. Mixed Number C. Equivalent Fractions D. Inequalities E. Fractions on a Number Line F. Reading and Writing Fractions G. Types of Fractions 1. Set Model 2. Region Model H. Ratio 1. Comparing two numbers 2. Equivalent ratios as fractions	Use geometric figures to illustrate meanings of fractions (Region Model). Use set demonstration objects to illustrate meaning of fractions (Set Model). Use a number line to illustrate the correspondence between whole numbers and fractions. Discuss equivalent fractions. When we divide a work day into 8 hours each hour is 1/8 (set model), but if we look at the day as a whole then one hour is 1/8 of a whole day (region model). Use a ruler to illustrate fractional parts of a line. Use fractions that students can understand when introducing new concepts.

BASIC MATHEMATICAL CONCEPTS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
FRACTIONS (continued)	The student will be able to solve problems using basic functions with fractions. The student will be able to write equivalent fractions. The student will be able to add and subtract fractions.	II. Operations in Fractions A. Changing Form of a Fraction 1. Common denominators 2. Equivalent simple fractions 3. Reducing fractions to a. Whole numbers b. Simplest form c. Mixed numbers 4. Changing mixed or whole numbers to improper fractions B. Addition and Subtraction 1. Adding and subtracting fractions with like denominators 2. Finding the least common denominator when adding and subtracting fractions 3. Adding and subtracting mixed numbers a. With renaming b. Without renaming 4. Related Story Problems C. Multiplication 1. Regions, the number line and multiplication a. Repeated addition 2. Basic principles 3. Relationship between multiplication and division 4. Multiplication of fractions	Use situations in measurement for: 1) Cooking 2) Sewing 3) Shop Sample problem of repeated addition: How many 3/4-inch strips can be cut from a piece of sheet zinc 9 inches wide? Use number line for repeated addition (i.e., 5 x 1/2) Use paper folding to understand the concept of region model in multiplication of fractions. Use centimeter rods or other manipulative devices to find the Least Common Multiple.

BASIC MATHEMATICAL CONCEPTS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
FRACTIONS (continued)		II. Operations in Fractions (continued)	
		D. Division	
		1. Review meaning of division 2. Finding the Least Common Multiple 3. Common denominator approach to dividing fractions 4. Inversion and multiplication	
		III. Practical Applications of Fractions A. Everyday Life B. Working Situations	Sample problem: Four men purchased an electrical supply business. The first paid 3/10 of it, the second 325/1000 of it and the third 1/5 of it and the fourth paid for the remainder which was $3,000. How much did the total business cost.
			Teach addition and subtraction of unlike denominators. 1) Dollars and cents 2) Inches and feet 3) Minutes and hours 4) Quarts and gallons

BASIC MATHEMATICAL CONCEPTS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
DECIMALS	The student will be able to read, write, and use decimals.	I. Reading and Writing U.S. Money in Decimal Form A. Use of decimal point in U.S. monetary system B. Fractional parts of a dollar II. Reading and Writing Decimal Numerals A. Comparing decimal fractions with common fractions B. Rounding off decimals C. Inequalities and decimal notation III. Operations A. Addition B. Subtraction C. Multiplication 1. By 10, 100, 1000 2. Determining decimal places in a product D. Division 1. Use of zero when dividing 2. By 10, 100, 1000 3. Terminating decimals 4. Repeating decimals	Use money to illustrate values of money and counting. Use decimal fractions in reading time tables. Use money in teaching decimal equivalents in common fractions. Learn how to use a library; Dewey Decimal System. Role play to learn how to make change.

BASIC MATHEMATICAL CONCEPTS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
DECIMALS (continued)	The student will be able to understand per cents.	IV. Per Cents A. Meaning of: 1. Comparisons 2. Per Cent of a Number 3. As a Ratio B. Use of: 1. Finding what per cent one number is of another 2. Finding a per cent of a number C. Practical Story Problem Applications V. Practical Application of Decimals A. Money; making change B. Fractional portions (e.g., purchase of 3.9 gal. of gas) C. Reading speedometer D. Timetables	Use of per cents 1) Discount 2) Commission 3) Interest 4) Graphs 5) Sales Tax Money applications; finding per cents in store sales. Ratio, Proportion and percentage used in preparing food. Ratio and proportion used in fertilizing a garden. Fractional problems in arranging a garden into different sections. Sample Questions: A screw used for fastening a switch to a wall passed through the porcelain switch base .375 inch thick, plaster .125 inch thick, and .755 inch plywood. How long must the screw be to pass through each of the surfaces? What will it cost to lay 5.4 miles of steel train rail if the rails weigh 43-1/3 pounds per foot and cost $48.50 per ton?

BASIC MATHEMATICAL CONCEPTS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
MEASUREMENT	The student will be able to use the metric system and standard system of linear measurement.	I. Linear Measurement A. Introduction to Linear Measure 1. Non-standard measure 2. Early measure a. Span b. Digit c. Etc. B. English Measure 1. Inch 2. Foot 3. Yard 4. Mile C. Metric Measure 1. Millimeter 2. Decimeter 3. Meter 4. Dekameter 5. Hectometer 6. Kilometer D. Compare and Contrast Metric and English Measure E. Additional Measurement Terms 1. Length 2. Width 3. Height 4. Thickness	Discuss the importance of standardized measure. Estimate heights of flagpole and buildings. Develop a useful vocabulary of measurement and comparison. Measure athletic courts and fields. Learn common measure equivalents. Change measures from one unit to another; reduction of measures. Develop idea of precision in measurement. Discuss uses of measurement in daily living. Understand that all measurements are approximate. Use a ruler to measure lines of varying lengths. Read the measurements to varying degrees of accuracy. Use a yard stick. Measure for building improvement (curtains, etc.). Compute in table form English Measure into metric units of measure.

BASIC MATHEMATICAL CONCEPTS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
MEASUREMENT (continued)	The student will be able to understand the concept of area.	II. Area (squares and rectangles) A. English Measure 1. Square Inch 2. Square Foot 3. Square Yard 4. Acre B. Metric Measure 1. Square Centimeters 2. Square Meters 3. Hectare C. Compare and Contrast Metric and English Measure III. Liquid Measure A. English Measure 1. Cups 2. Pints 3. Quarts 4. Gallons 5. Fluid Ounce 6. Tablespoon 7. Teaspoon B. Metric Measure 1. Centiliters 2. Deciliters 3. Liters 4. Dekaliters 5. Hectoliters 6. Kiloliters C. Comparison of Metric to English	Develop useful vocabulary of measurement and comparison Learn common measure equivalents. Change measures from one unit to another; reduction of measures. Develop idea of precision in measurement. Develop an awareness of measure used in various jobs 1) Painter 2) Carpenter 3) Floor Covering 4) Dry Wall Installation Develop an awareness of following tools: 1) Square 2) Tape Measure 3) Diameter Drills 4) Measure of Tools; wrenches Develop a knowledge of: 1) Finding diameter of plane surfaces 2) Measure of materials 3) Standard thickness of plywood and wire Use measuring cups to learn how to measure common amounts (1/2, 1/3, 1/4, 2/3, 3/4) (practical application to cooking). Use measuring spoons to learn how to measure ingredients for cooking (tablespoon, teaspoon, 1/2 teaspoon, 1/4 teaspoon). Story problem suggestions: 1) How much molding is required for a picture frame whose outside dimensions are 13 inches by 17-1/2 inches? 2) If 26 feet of telephone wire weigh one pound, what will be the weight of a mile of such wire?
	The student will be able to understand dry measurement.	VI. Dry Measure A. Peck B. Bushel	

BASIC MATHEMATICAL CONCEPTS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
MEASUREMENT (continued)	The student will be able to understand the concept of time.	V. Time: A. Units of Measure 1. Second 2. Minute 3. Hour 4. Day B. Clock Measure 1. Hour 2. Half-hour 3. Quarter-hour 4. Minute 5. Before/after 6. Fractional parts C. Calendar measure 1. Day 2. Week 3. Month 4. Year D. Relationships 1. B.C.-A.D. 2. Past-Present-Future 3. Seasons 4. A.M.-P.M. 5. Time Zones	Practice telling time. Use of Calendar Discuss physical conditions of the four seasons. Learn to set up time schedule (weekly and daily). Simulate a class trip. Sample questions: 1) How long would it take a person riding in a car to cover a distance of 3,000 miles at an average rate of 38 miles an hour. Express answer in days, hours, minutes and seconds. 2) An electrician with a helper completed a wiring contract in 246 hours. Without the helper he estimated that it would take 294 hours. How many hours did he save by having a helper? Discuss time zones and why they are used.
	The student will be able to understand the concept of temperature.	VI. Temperature A. Degree B. Freezing Point C. Boiling Point D. Types of Measure 1. Fahrenheit 2. Centigrade	Discuss different types of thermometers. Compute temperature from Centigrade to Fahrenheit. Discuss different ways of writing dates.

BASIC MATHEMATICAL CONCEPTS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
MEASUREMENT (continued)	The student will be able to use the metric and standard systems of weight measurement.	VII. Number A. Pair B. Dozen VIII. Weight A. Estimations B. English Measure 1. Ounce 2. Pound 3. Ton C. Metric Measure 1. Milligram 2. Centigram 3. Decigram 4. Gram 5. Dekagram 6. Hectogram 7. Kilogram	Discuss why we have standardized measure. Use a scale to weigh objects: 1) Postal Scale 2) Candy Scale 3) Bathroom Scale 4) Science Scale Weigh a pound of nails, or something heavy and a pound of popcorn, or something light and compare. Compare and compute the differences of Metric and English units of measure. Use measuring devices stressing quantity and standardization. 1) Cooking food 2) Purchasing food Compare and contrast the difference in gas mileage caused by hauling heavy loads vs. light loads.

BASIC MATHEMATICAL CONCEPTS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
GRAPHS, TABLES, AND CHARTS	The student will be able to use charts and tables.	I. Charts A. Use of Charts 1. Multiples of 2, 5, 10 2. Addition and Subtraction B. Price Charts C. Read Pictographs	Student constructed number chart. Chart grocery store prices; comparison/ contrast. Class academic performance charts. Study wide variety of charts from newspapers and magazines.
		II. Tables A. Measurement B. Read and Make Tabulation Charts C. Showing Relationships D. Making Comparisons	Read road maps. Study weather forecast and weather charts. Chart: 1) Temperature 2) Time Tables
	The student will be able to use road maps.	III. Maps A. Road Maps B. Weather Maps C. Conservation Canoe Trip Charts D. General Land Charts	Make up day to day charts on ecology problems (possibly) 1) Air Pollution 2) Ozone Levels

BASIC MATHEMATICAL CONCEPTS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
GRAPHS, TABLES, AND CHARTS (continued)	The student will be able to use graphs.	IV. Graphs A. Understand the Purpose of Graphing B. Kinds 1. Line 2. Bar a. Horizontal b. Vertical C. Use of Different Types D. Reading Line, Bar and Circle Graphs E. Scale Drawings 1. Reading 2. Making F. Practical Applications	Use line and bar graphs as daily classroom activities. Circle graphing with concept of money. Examine types of employment that use graphing and charting. Discuss household applications to scale drawing: 1) dimensions and planning a garden 2) area 3) length 4) width 5) use blueprints for house remodeling or home improvement Practical application: A house is 40 feet long, 32 feet wide and it has an average height of 19 feet. Allowing 28 square yards for gables and stormer windows, how many square yards of painted surface are there on the house?

BASIC MATHEMATICAL CONCEPTS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
GEOMETRIC CONCEPTS	The student will be able to recognize geometric forms.	I. Recognition of Geometric Forms A. Square B. Circle C. Triangle D. Rectangle E. Right Angles F. Parallel Lines G. Interesting Lines	Take pictures of various objects (yield signs) and identify as geometric shapes. Have student identify various shapes being studied and found in the classroom. Have students quiz each other. Find distinctions and similarities among circles, squares, triangles, and rectangles.
		II. Simple Perimeters A. Square B. Rectangle C. Triangle	Examine unusual geometric shapes such as crystals and beehives (cells). Use simple geometric figures to review meaning of fractions and mixed numbers.
	The student will be able to compute geometry problems.	III. Find Area of Rectangles and Squares in: A. Square Inches B. Square Feet C. Square Yards	Read and make simple scale drawings. Read floor plans Problem: Find the number of board feet in a piece of timber 18 feet long, 10 inches wide and 3 inches thick.
		IV. Measuring Angles A. Use of Protractor B. Practical Applications C. Pythagorean Theorem	Discuss the use of angular measure in: 1) Laying Carpet 2) Tiling Floors 3) Hanging Dry Wall 4) Building Construction

BASIC MATHEMATICAL CONCEPTS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
PROBLEM SOLVING	The student will be able to understand and demonstrate problem solving skills.	I. Ideas of Problem Solving A. Determine What Operation or Operations Are Needed B. Can Be More Than One Way To Solve Problem C. Understanding A Word Problem D. Estimating Answers II. Thought Used in Problem Solving A. Union of 2 Unequal Groups (addition) B. Multiplication and Addition of Equal Groups C. Removing Parts From a Group (Subtraction) D. Greater Than or Less Than Concept III. Problem Solving as it Pertains to: A. Money Management B. Fractional Numbers C. Use of Averages D. The Job E. Time	Problem solving should be used throughout Math content. Students should solve real life problems relating to mathematics. Have students encounter mathematics problems that are used in: 1) Shop a) Wood b) Electrical c) Mechanical 2) Real Life 3) Home Ec a) Cooking b) Sewing 4) Agriculture 5) Job Application to Ones Related to Field of Study Using numbers to determine losses and gains.

BASIC MATHEMATICAL CONCEPTS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
PROBLEM SOLVING (continued)		IV. Problem Solving Aids A. Pictures B. Story Problems with Missing Data C. Secondary Problems D. Estimations E. Problems without Numbers 1. Operation Used 2. Problems with Solution Intact to Determine Operations Used F. Practical Application G. Choosing Alternate Solutions	Use numbers in 1) Changing Units of Measure 2) Enlarging Recipes 3) Planning Daily Schedules 4) Real Life Situations a) Sharing work b) Costs c) Profits d) Etc. 5) Keeping Records a) Supplies b) Cost and Expenses c) Game Activities

PRACTICAL APPLICATIONS OF MATHEMATICS

PRACTICAL APPLICATIONS OF MATHEMATICS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
WAGES	The student will be able to figure wages, deductions, and net salary.	I. Figuring Pay A. By the Hour B. By the Day C. By the Week D. By the Month E. By the Year II. Overtime Pay A. Time and One-half B. Double Time III. Deductions A. Federal Income Tax B. City Tax C. Social Security D. Hospitalization E. Union Dues F. Campaign Pledges IV. Credit Unions V. Net Pay	Illustrate facts by "real" problems Read newspapers Class discussions--current topics relating to: increased wages benefits union strikes unemployment standard of living

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
BUDGETING	The student will be able to understand and demonstrate budgeting skills	I. Personal Cash Accounts II. Savings A. Savings Accounts (simple interest) B. Savings Bonds C. Cumulative Effect of Saving Small Amounts Regularly III. Checking Accounts A. Balancing B. Endorsing A Check IV. Paying Bills A. Utility 1. Gas 2. Electric 3. Water 4. Telephone B. Charge Account C. Grocery	Visit a bank Speakers from Electric Company, Gas Company, Water Company, and Telephone Company Keep a personal account for one or two weeks. Use this account to plan a workable budget. Be able to prepare a simple form for keeping a cash account and practice keeping one. Show wisdom of systematic savings. Guide students to develop an attitude of thrift toward spending and a habit of budgeting. Obtain information on U.S. Savings Bonds program. Discuss banking. Pupils should understand basic terms used. Also obtain samples of bank forms and discuss them. Provide the students with sample checks, deposit slips and savings account forms. (These can be dittoed and drawn on any fictitious bank, such as "Any bank, U.S.A.") Have the students learn the correct way to fill out these forms.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
BUDGETING (continued)		V. Insurance A. Need B. Kinds 1. Auto 2. Life 3. Health and Accident (Blue Cross) 4. Fire VI. Plan a Budget	Discuss how to read electric and gas meters and check bills Stress the importance of checking all bills before paying. Invite someone to talk to the class on insurance. Use information from home situations to make budgeting a real problem. Use work-study plan for budgeting wages.

PRACTICAL APPLICATIONS OF MATHEMATICS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
SHOPPING	The student will be able to exhibit shopping skills.	I. Comparison of prices II. Quality vs. Quantity III. Clothes Standard sizes (shoes, dresses, pants, shirts, etc.)	Read newspaper advertisements to compare buys available at different stores. Read the Shopping News to locate good buys. Go shopping; discuss shopping in terms of values, quality of merchandise, careful spending, etc. Discuss "specials". Learn the correct way to make change (counting up from the amount of the purchase to the amount tended). Determine sizes of clothing worn by students. Compare similar items as to price and quality (e.g., 2 coats of far different price ranges). Have students secure prices of various grocery items in different stores and discuss their findings. Obtain prices of standard items of food at a local grocery store. Have students make up shopping lists and figure out how much it would cost them to buy items and amounts on their lists.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
SHOPPING (continued)		IV. Groceries Labels for Products: King size Super size Family size Regular size V. Buying by Mail A. How to Order from Catalogs B. Sending Payment by Mail 1. Cash (not a good way) 2. Check 3. Money Order VI. Major Purchases (automobiles, etc.)	Discuss the need for estimating the cost of a grocery purchase either before going to the store or while at the store selecting items. Discuss possible solutions to the problem which arises when selected purchases total more than the budgeted amount, or cash on hand. Problems of: Selection Comparing values Totaling purchases Computing change Discuss ways to save money when shopping: Large packages vs. small Idea of waste through spoilage Buying in season Discuss "good business habits" in daily transactions: Estimating cost of articles purchased. Counting change received when making a purchase. Discuss how to go about making a major purchase, such as an appliance or automobile. Have students bring in catalogs in which they are interested and practice making orders from them. Discuss legal forms of receipt of payment: Receipts How to fill out a receipt form Written form to use when no printed one available Cancelled checks Receipted bills Stress the importance of keeping receipts

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PRACTICAL APPLICATIONS OF MATHEMATICS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
PURCHASING	The student will be able to exhibit purchasing knowledge and skills.	I. Cash Payment II. Buying on Credit A. Personal Responsibility B. Finance Companies (Small Loans) C. Bank Notes (Promissory Note) D. Interest E. Carrying Charges F. Discounts (Use of Per Cent) G. Department Stores 1. Charge Accounts 2. Lay-away Purchasing H. Automobiles 1. Interest on the Loan 2. Insurance 3. Maintenance 4. Depreciation 5. License	Procure information from department stores, banks, loan companies. Read newspapers and magazines for class discussion. Invite a local businessman to talk to the class. (e.g. insurance, etc.)

PRACTICAL APPLICATIONS OF MATHEMATICS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
PURCHASING (continued)		III. Installment Play Buying	Invite Banker to speak on
		A. Down Payment	A. Repossession
		B. Monthly Payment	B. Checking Accounts
		C. Service Charge or Carrying Charge	C. Saving Accounts
		IV. Borrowing Money	3 year plan 2 year plan 1 year plan

PRACTICAL APPLICATIONS OF MATHEMATICS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
BUSINESS TERMS	The student will be able to understand basic business terminology.	I. Regular Price II. Sale Price III. Net Price IV. Discount Use very simple problems to illustrate idea of computing discounts V. Bargain VI. Applications of Per Cent A. Discount B. Commission C. Interest	Reading and class discussion: Newspaper advertising Store Front Advertising

PRACTICAL APPLICATIONS OF MATHEMATICS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
COMMUNICATIONS	The student will be aware of and able to use communication services.	I. Telephone	FIELD TRIPS
		A. Cost of Local Service	Western Union Telegraph Office
		B. Cost of Long Distance Service	Telephone Building
		C. How to Place a Long Distance Call	Downtown U.S. Post Office
		1. By direct distance dialing	
		2. Through an operator a. Person-to-Person	Secure telegram forms from Western Union
		b. When calling collect	Practice writing telegrams
		c. When charging the call to a third phone	Install a school service phone
		II. Telegraph	Learn how to compute amount of postage needed (e.g.--a letter of more than 1 ounce)
		A. Cost of telegrams	
		B. When to send a telegram	How to use a postage scale
		III. Postal Service	Learn how to buy a postal money order
		A. Classes of Mail	
		B. What May be Sent Through U.S. Mail	
		C. Cost of Different Mail Services	
		D. Parcel Post	
		E. Money Orders	
		F. Zip Codes	

PRACTICAL APPLICATIONS OF MATHEMATICS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
TRAVEL	The student will be familiar with various aspects of travel.	I. City Bus	FIELD TRIPS
		Cost of Fare	Bus Station
		II. Passenger Busses (Long Distance)	Railway Station
		III. Train	Airport Terminal
		IV. Airplane	
		V. Tickets	Secure train and bus time tables and learn how to read them.
		A. Round Trip	Plan a class trip including: 1. Reading maps 2. Scale measurement 3. Budgeting money 4. Reading time tables (train and bus) 5. Time changes 6. Computing gas mileage 7. Keeping accounts for lodging and meals 8. Counting money (change) 9. Using compass and road maps 10. Budgeting time
		B. One-way	
		C. Family rates	
		D. Vacation rates	

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SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
TAXES	The student will be able to understand federal and state taxation.	I. Who Pays Taxes II. Kinds of Taxes A. Federal Income B. Property C. Sales D. Gasoline E. City Income F. Amusement G. Luxury H. Withholding III. Levels of Taxation A. Federal B. State C. Local IV. Benefits of Tax Money A. Education B. Police Protection C. Fire Protection D. Street Maintenance E. Military Forces	Read newspapers for current developments in taxation. Obtain tax form kits from Internal Revenue Office (local). Study tax forms obtained from local Internal Revenue Office. Prepare tax form statements. Make up a sample problem situation for th students to use in filling out income tax forms. Read newspapers on current expenditures by local, state, and federal government. Develop class conscientiousness on how government should spend tax money. Discuss the state lottery and how it work

PRACTICAL APPLICATIONS OF MATHEMATICS

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
TAXES (continued)		V. Federal Income Tax	Invite Speaker on Taxes (Accounting Agent)
		A. When to File	1. Individual 2. Local Tax Auditor 3. State Income Tax Agent 4. Internal Revenue Service Agent
		B. How to File	
		C. Where to Seek Help in Filing	
		D. Where to Get Tax Forms	
		E. Types of Tax Forms	
		F. Who Pays Income Tax	

A SUGGESTED COURSE OUTLINE
FOR TEACHERS, COUNSELORS, COORDINATORS AND JOB COACHES
OF CHRONIC-DISRUPTIVE YOUTH

LANGUAGE ARTS SECTION

Compiled by

Dr. Sidney Miller
Dr. David Sabatino
Dr. Charles Sloan

October, 1975

Forward

The Language Arts units have high practical implications for the chronic-disruptive youth who desire skills for both everyday living and for future jobs. The study content is closely related, in many instances, to skills which have been identified as necessary for both job entry and job participation. A list of the language arts skills and the percentages of time they were considered applicable to job entry and on-the-job work is included in this section.

COURSE OUTLINE

LANGUAGE ARTS

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LANGUAGE ARTS OVERVIEW

I. Listening Activities

  A. Following directions
    1. Aims and rules of games
    2. Lesson assignments
    3. Intercom messages

  B. Theme comprehension
    1. Through class discussion
    2. Listening to an "outside" speaker in class
    3. Reporting on meetings such as clubs or athletics

  C. Attending
    1. Listening attentively to others
    2. Answering people correctly
    3. For facts or directions
    4. For purposes and hidden meanings

II. Speaking Activities/Oral Communication

  A. Giving directions or instructions

  B. Giving information to others

  C. Asking germane questions

  D. Relating ideas sequentially

  E. Using proper communication techniques

  F. Proper telephone communication techniques

  G. Role playing
    1. Seeking a job
    2. Being interviewed
    3. Introducing people
    4. Interacting with fellow workers
    5. Interacting with supervisors

III. Reading Activities

A. Developing minimum ability to extract topic sentences and general themes from reading matter

B. Making use of library for pictures, records, maps, encyclopedias and other references
  1. Reading and comparing different sources on same subject matter

C. Leisure reading
  1. Reading to younger children
  2. Reading:
    a. Playbills
    b. Movie listings
    c. TV Guides
    d. Magazines, newspapers and comic books
    e. Books for enjoyment

D. Reading directions for:
  1. Safety
  2. Clearning
  3. Laundering
  4. Medicines
  5. Preparation of meals
  6. Sewing
  7. Using and repairing appliances
  8. Driving
  9. Walking
  10. Fire alarm boxes
  11. Using the telephone
  12. Using the telephone directory/yellow pages

E. Reading for instructions:
  1. School announcements
  2. Social situations (exit, ladies' and men's rooms)
  3. Telephone - long distance, information, etc.
  4. Telegraph
  5. General signs (traffic, directional, civil defense, etc.)
  6. Hobbies (model cars, sewing, gardening, etc.)
  7. Work memos and related data

IV. Writing Activities

- A. Grammar
  1. Punctuation
  2. Capitalization
  3. Plurals
  4. Proper Nouns
  5. Spelling for personal use
  6. Dictionary work
  7. Simple sentence structure
  8. Alphabetical order (use telephone books, catalogues, encyclopedias)

- B. Mechanics of writing
  1. Neatness
  2. Legibility
  3. Formal letter writing
  4. Filling out forms

- C. Creative writing for pleasure
  1. Letters
  2. Prose and poetry (rhymes)

- D. Situations which require:
  1. School forms
  2. Application blanks
  3. Income tax forms
  4. Bank forms
  5. Money order blanks
  6. Insurance papers
  7. Order Blanks
  8. Postal Services
  9. Letter writing
  10. Letter writing in formal situations

- E. Clerical skills - an added supplement
  1. Typewriting as student can perform
  2. Filing - alphabetizing, etc.
  3. Basic office practices

LANGUAGE ARTS SKILLS RELATED TO JOB ENTRY AND JOB PERFORMANCE

Because of the wide variety of ability and achievement levels that are dealt with in educating the chronic-disruptive youth, it is very impractical to assess job-related academic skills to each level of the Language Arts Overview. Listed below is a table of each skill and the percentage of workers (based on 34 basic occupations) who have used these skills. This information is based on the Generic Skills Study cited in chapter four.

The first column states the percentage of those who have used the skill upon entry to their job, and the last column gives the percentage of workers who have used the skill while on the job.

Reading	Job Entry	On Job
Notes, letters, memos	89%	91%
Work orders	66%	89%
Charts	39%	61%
Instructions	46%	85%
For facts	94%	79%
Opinion and purpose	42%	64%
Comparisons	36%	69%
Information from books (telephone, catalogue, dictionary)	72%	89%
Comparison of more than one source	24%	50%
Judgment of what source is best	17%	40%
Writing		
Letters	44%	44%
Memos	64%	70%
Fill in or complete phrases	75%	83%
Fill in or complete sentences	53%	57%
Fill in or complete paragraphs	39%	41%
Reports that show information	21%	46%

LANGUAGE ARTS SKILLS RELATED TO JOB ENTRY AND JOB PERFORMANCE (continued)

Writing (continued)	Job Entry	On Job
Prepare reports which require: (reading and writing)		
Information that is needed to do a job	5%	26%
Decisions on how to get information	4%	22%
Analyzing information	3%	14%
Evaluation of information	4%	10%
Listening		
To know facts or directions	91%	99%
To know opinions, purpose, or hidden meaning	39%	73%
Talking		
Giving directions or instructions	44%	83%
Giving Information	54%	96%
Getting information by asking questions	66%	97%
Giving formal talks		
Discussion		
Debating with fellow workers	49%	91%
Debating with supervisor	46%	94%
Taking part in formal meetings--to present point of view	18%	44%
Sorting		
Information of objects by list	39%	73%
Setting up lists for sorting	25%	54%

LANGUAGE ARTS SKILLS RELATED TO JOB ENTRY AND JOB PERFORMANCE (continued)

Diagnosing	Job Entry	On Job
Determining reasons why	38%	70%
List, state, or think of causes why	28%	61%
Using reference manuals as guide to problem solving	20%	44%
Checking a sequence of steps for cause	25%	52%
Finding the correct reason why	29%	58%
Using reference manual to find correct answer	18%	40%
Asking probing questions	29%	54%
Examine by smelling, touching, tasting	36%	61%
Following instructions		
Simple--if, then	74%	97%
if this happens, then this	44%	85%
if this, then (make choice)	27%	77%
Do you establish own work priorities?		
Usually	17%	64%
Sometimes	23%	24%
Rarely	11%	6%
Never	34%	7%

ENGLISH I

ENGLISH I

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ENGLISH As It Pertains To Center Environment	The student will be able to listen and follow directions. The student will be able to participate in group discussion. The student will be able to participate in general conversation. The student will be able to use voice, gestures and eye contact effectively. The student will be able to ask questions for clarification.	I. Orientation A. Building tour B. Personnel groups C. Center rules and regulations D. Leisure Activities 1. Individual a. Games b. Library (books) 2. Group a. Sports b. Clubs c. Games E. Relationship between personnel and students F. Expected behavior (manners) G. Personal appearance 1. In establishing relationship with others 2. In development of personal self-worth	Group interaction and discussion of previous life experiences including discussions on how center life relates to each student's needs. Allow students to relate their experiences to the new group. Show movie made by students that relates to their new environment. Discuss good manners and cooperation. Discuss importance of personal appearance. Discuss the pros and cons of club membership. Familiarize students with the value of leisure activities. Write pupil-dictated stories on the blackboard. The story should be in respect to previously discussed topics concerning the center environment. Have students copy these stories from the blackboard. Teacher-made Language Experience Charts on good grooming, safety, manners, ... Teacher-made skits that are acted out by students emphasizing good models of behavior. Have students make their own movies and/or tapes, recording skits and short plays they have created. Have students learn the name of their center and its spelling, as well as names of teachers, friends, and new acquaintences. Discuss characteristics of a good leader and good fellowship.

ENGLISH I

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ENGLISH As It Pertains to Center Environment (continued)	The student will be able to write legibly.	II. Writing A. Discussion summaries B. Skits C. Names of 1. Personnel 2. Building 3. School address D. Center's clubs E. Rules for behavior	List rules for behavior and discuss the reasons why the rules were made. Make reports on club meetings. Make reports on "cottage" living. Play Flash card games relating words taken from Center activities. Provide basic spelling list derived from written work and daily speaking vocabulary.
	The student will be able to spell functionally in writing. The student will be able to identify word forms.	III. Spelling A. Words used in written work B. Words used in spoken vocabulary C. Names of 1. Teachers 2. Buildings (areas) 3. Clubs 4. Friends 5. Other D. Sports Activities E. Center subjects	Collect newspaper and magazine articles relating to subjects under discussion. Show films selected from catalog. Promote skits written by students.

ENGLISH I

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ENGLISH As It Pertains to Center Environment (continued)		IV. Reading A. Work presented on blackboard B. News clippings C. Center stories of studied interest D. Stories related to club experiences E. Pupil dictated stories F. Language experience charts V. Usage: Oral practices and written exercises needed as shown by individual students work on daily assignment.	

ENGLISH I

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ENGLISH As it Pertains to Personal Life	The student will be able to give explanations.	I. Personal Living A. Personal Care 1. personal care 2. play 3. proper foods 4. Cleanliness 5. medical care 6. dental care B. Wants and Needs 1. Use of time a. school work b. home activities c. leisure time 1) recreation 2) reading 3) T.V. 4) other 2. Uses of money a. personal accounts b. means of earning a living c. wise spending d. savings II. Writing A. Summaries of group discussions on board B. Health rules C. Menus for healthful meals D. Compositions 1. Earning and spending money 2. Leisure time	Work with alphabetized listings. Learn telephone manners. Plan a party by telephone. Entertain guests. Visit a recreation center. Take a field trip to the telephone company. Set up token economy to help budget time. Stress the value of wants and needs and what is more important (i.e., cleaning house or watching television). Discuss how values change using intra-personal relationships. Write letters of student interest. Write letters for free products. Discuss why it is important to do one's best. Awareness of neatness and orderliness.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ENGLISH As It Pertains to Personal Life (continued)	The student will be able to read and follow directions.	II. Writing (continued) E. Personal accounts F. Social letters	GUEST SPEAKERS A. dietician
	The student will be able to use root words.	G. Names and addresses of recreational centers, churches, etc.	B. dentist C. eye doctor (opthamologist, optometrist)
	The student will be able to identify and write sentences.	III. Reading A. Articles and stories on health topics B. Activities of teenagers	D. medical doctors (various specialists, general practitioner)
	The student will be able to identify main ideas.	C. Related articles in newspapers and magazines	
	The student will be able to use dictionary and thesaurus effectively.	IV. Spelling A. Important health words B. Names of foods C. Words needed in written expression	
	The student will be able to make announcements.	V. Usage	
	The student will be able to use listening behaviors--eye contact, body posture.	Oral practices and written exercises in needed areas as shown by discussions and on students' assignments (papers).	

ENGLISH II

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ENGLISH II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ENGLISH As it Pertains to Home and Family	The student will be able to listen to complete ideas. The student will be able to derive word meaning from context. The student will be able to use language correctly.	I. Personality and Character Traits as Developed in the Home A. Likes and dislikes B. Prejudices C. Cooperativeness D. Selfishness E. Attitudes about money F. Manners 1. In relation to: a. speaking 1) formal 2) informal b. listening c. dress d. promptness 1 being on time e. entertaining 1) at home 2) in others' home f. telephone 1) voice 2) tone 2. Situations a. on a date b. on the street c. at the table d. at a party with parents and family	Dramatize the introduction of a friend, other guest, or adult to your parents. Discuss the importance of good conversation skills. Point out the difference between good English and poor within the home and how to overcome common family errors. Examples: isn't, aren't, "ain't", these, those, them, "this here". Write sentences using direct quotations to illustrate different kinds of sentences and their punctuations. Role play situations using the telephone, stressing the difference between talking to a friend and calling for action or information (i.e., telephone company information). Continue token economy through all programs.

ENGLISH II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ENGLISH As It Pertains to Home and Family (continued)	The student will be able to use prefixes and suffixes.	II. Grammar A. Spoken--common errors B. Kinds of sentences and their patterns 1. Statement 2. Command 3. Exclamation 4. Question	Discuss the importance of individualized expressions. Discuss formal speaking with an emphasis on grammar.
	The student will be able to capitalize and punctuate correctly.	C. Punctuation 1. Period 2. Question mark 3. Exclamation point 4. Comma 5. Quotation mark	

ENGLISH II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ENGLISH In Relation to Center and Community Activities	The student will be able to effectively interact in social situations. The student will be able to identify speaker's purposes.	I. Social Situations A. After-Center clubs 1. Eagles 2. Elks 3. Moose 4. Masons B. Friendships 1. Qualities of a friend 2. Ways of making friends 3. Ways of keeping friends C. Introductions D. Manners E. Simplified Parliamentary Procedure F. Social situations II. Moral Values Good vs. bad III. Communications A. Telephone 1. Holding of telephone lines 2. Making a business complaint 3. Asking for an adjustment	FIELD TRIPS Y.W.C.A. Y.M.C.A. Library Recreational Centers Church Youth Groups Telephone Company T.V. Studio Radio Station Peer evaluation Telephone for Home Repairs Films on Related Field Guest Speakers from Clubs of Student Interest List qualities of a friend and ways of making friends. Learn how to make introductions. Role play: Kinds of conversations and situations. Provide opportunity for learning simplified parliamentary procedure for use in club groups. Demonstrate good manners and courteous behavior.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ENGLISH In Relation To Center and Community Activities (continued)		III. Communications (continued)	Discuss social situations in which the class is interested.
		A. Telephone (continued)	Read biographies that illustrate acceptable behavior patterns.
		4. Getting information on transportation	Discuss proper behavior in different situations.
		5. Placing a long distance call	Plan an activity that makes use of telephone call, such as summertime "get-together."
	The student will be able to relate reading to personal experience.	6. Using classified section of telephone directory	Get information over the phone on train, bus, or plane time schedules. Have a representative from the telephone company visit the classroom and display charts, etc., and discuss with the class the many facets of a large company.
		B. Newspaper	
		1. Various departments necessary for publication of a newspaper.	Have a newspaper reporter talk to the class. Make up a class report for the school paper.
	The student will be able to read with comprehension.	2. Articles of general interest	Subscribe for at least one morning paper per day per class.
		3. Editorial writing vs. news reporting	Look at magazines in the same critical manner as newspapers. Make an advertising mock-up for TV.
		C. Magazines	Evaluate programs which the students hear and watch regularly.
	The student will be able to extract information by listening.	D. Television	
		E. Radio	
	The student will be able to consider effects of listening.		

ENGLISH II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ENGLISH In Relation To Center and Community Activities (continued)		III. Communications (continued) F. Advertising 1. Television 2. Radio 3. Newspaper G. Signs, labels, etc. 1. Street signs 2. Business establishments 3. Factories 4. Etc.	

ENGLISH II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ENGLISH As It Pertains to Daily Reading and Language.	The student will be able to use synonyms, antonyms, homonyms.	I. Reading as an aid in buying and caring for personal possessions A. Reading and interpreting ads from department stores	Obtain literature from pattern companies on practical types of materials for garments and their expected service, life, and care required.
		B. Reading labels of 1. Garments 2. Cosmetics 3. Utensils C. Becoming familiar with the pitch of a door-to-door salesman and deciding the worth and personal need of his product.	Recognize the needs of girls to choose cosmetics and clothes. Recognize the needs of boys. Have students act out skits with some members of the class portraying the salesman and others, the customer.
		II. Reading as an aid to activities in the home and good family life	Make a list of commonly used household words and phrases.
		A. Reading for younger children B. Word games which introduce household words and phrases	Have students write simple short stories relating personal experiences of importance to them.
	The student will be able to consider others' point of view--consider change.	C. Reading and discussion about boy-girl relationships. 1. Meeting people 2. Introductions 3. Social procedures 4. Things to do and say 5. Proper dress for different occasions	Discuss and write stories (paragraph) on student reactions to guest speakers.

ENGLISH II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ENGLISH As It Pertains to Daily Reading and Language.	The student will be able to use index and table of content.	III. Reading for profitable use of leisure time at home, in school, and in the community. A. Library enjoyment	Invite persons from the community to speak on community resources available for entertainment and recreation.
	The student will be able to use library card catalog, resources.	B. Teenage magazines and books	Obtain literature from the Y or other community agencies.
		C. TV listings and movie ads in the paper.	
		D. To learn about community resources for entertainment and activities.	FIELD TRIPS Library Museums Parks Local points of interest
			GUEST SPEAKERS Barber Beautician Cosmetic Representatives

ENGLISH III

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ENGLISH As It Pertains to Center Life		I. Participation in Center Activities A. Clubs B. Sports	Have representatives from various clubs explain their respective clubs to the class. Encourage student participation in clubs and sports.
	The student will be able to form hetero-sexual relationships.	II. Social Activities A. Dating 1. Getting to know many people 2. Difference in ages and beginning to date 3. How to ask for a date a. Be specific--include all the plans b. Simple request requires prompt and direct answer 4. How often to date depends upon individual study and activity schedule	Have students make bulletin boards to illustrate manners for special occasions--e.g., prom. Have several couples demonstrate the right and wrong ways to ask for dates and to accept or refuse dates in person or by telephone. Role-playing: Boy calling for a girl, girl introducing boy to parents Couple going to a show with and without an usher present Boy taking flowers when calling for a date; girl accepting the flowers.

ENGLISH III

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ENGLISH As It Pertains To Center Life (continued)		II. Social Activities (continued) B. Going Steady	Reading stories on young love.
		1. Advantages a. Boy can take for granted th that girl will accept b. Girl has more freedom to suggest activities	Invite the counselor to discuss situations openly with the students.
		c. Both parties can gain a better understanding of themselves and others	Suggeet current, relevant reading material.
	The student will be able to relate information to personal situation.	2. Disadvantages a. Dates not planned ahead may inconvenience girl b. Danger of becoming too possessive c. Failure to get acquainted with other types of personalities. d. Danger of becoming too dependent on one person	
		3. Break-ups: hurt feelings and Pride 4. A temporary arrangement 5. How to recover from a broken heart	

ENGLISH III

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ENGLISH As It Pertains To Community Life	The student will be able to demonstrate communicative effectiveness in daily living situations.	I. Communications A. Telephone B. Newspapers C. Radio and TV II. Needs of Communities A. Large Cities B. Small Cities C. Rural Communities III. Public Services A. Water B. Gas C. Light D. Sewer E. Police F. Fireman	Discuss varying needs of large and small communities. Discuss individual preferences to their community needs, and discuss problems of each type of community (personal experiences). Field trips to communication facilities in city. Field trips to public service facilities Write letters to various communities about what they offer. Discuss the difference among various utility bills and ways to conserve energy. Write poems, plays, short stories.

ENGLISH III

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ENGLISH As It Pertains to Career Life	The student will be able to write a letter of application. The student will be able to give brief reports. The student will be able to read to prepare reports. The student will be able to write a report.	I. Job Opportunities A. Needs for Working 1. Self-fulfillment 2. Earning a living B. Applying for a job 1. Letters of application 2. Job application blanks 3. The personal interview a. appearance b. good speech C. Problems of Holding a Job 1. Social aspects a. adjusting to others b. working under authority 2. Personal aspects a. initiative b. ambition c. promptness d. loyalty e. courtesy f. responsibility g. honesty	Role playing in applying for a job. Change roles from employer to applicant; have a chance to be critical of each other's speech and manners. Make a list of common speech errors for correction. Investigate personal abilities and interests. Have students read and report on biographies of outstanding people, with emphasis on their field of work. Develop a list of advantages and disadvantages of jobs as experienced by people in the story. Research occupations as to: hours, salaries, life style, conditions, educational requirements, etc. Write a composition dealing with tentative occupational choices in terms of self-interest. After researching occupations, students can develop a "career ladder" for three occupations of his choice.

ENGLISH III

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ENGLISH As It Pertains to Career Life (continued)	The student will be able to complete forms.	II. Filling out Forms A. Work permits B. Social Security C. Health Cards D. Bank Forms 1. Identification 2. Deposit and Withdrawal 3. Checks E. Income Tax	Students write a resume of why they are qualified for a certain job. Secure check list from job coordinator of necessary things to do before student is actually on the job. (Partial list of suggestions can be found on pp. 12-13). Secure samples of many forms to allow students much practice. Have work counselor talk about importance of correctly filling out forms. Obtain voting machine from the teacher consultants. Practice using legible printing or writing and correct spelling in filling out forms. Examine correct procedures for filling out income tax forms. Have accountant or tax expert visit and speak to class.

ENGLISH III

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ENGLISH As It Pertains To Personal Life		I. Personal Living	
		A. Health	Keep a record of foods eaten for a week.
		1. Nutrition--proper food a. Effect of eating habits on health b. Nutrition and balanced diet	Compare own diet with a recommended balanced diet.
			List good and poor eating habits observed.
		2. Rest a. Variation in sleep requirements b. "enough sleep"	Discuss good and bad attitudes toward food and eating. Use role playing to illustrate.
		B. Grooming	
		1. Cleanliness a. Hair b. Clothes	Read Magazines and Newspapers.
		2. Appearance--neatness a. Right amount of make-up b. Brushed hair c. Shined shoes d. Pressed clothes e. Posture	School Guests Barber Beautician Cosmetic Specialists Local clothing store attendent workers

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ENGLISH As It Pertains to Personal Life (continued)		II. Leisure Time A. Purposes 1. Relaxation 2. Diversion 3. Change of pace B. Forms 1. Participating in sports 2. Spectator activities a. sports b. movies c. reading d. T.V. 3. Constructing around home 4. Community service 5. Volunteer work C. Use of leisure time for effective citizenship D. Wise use of leisure time as a social problem E. Use of leisure time to provide creative satisfactions not provided by work	Students conduct a survey of hobby shops, crafts, class speakers, etc., to find out what kind of economic rewards one can obtain through the pursuit of hobbies or interests (Have them present to class). Costs of leisure activities i.e., golf is much more expensive than bicycle riding. Examine all types of volunteer work. Boy scouts Girl scouts Big Brother Little League (Baseball coaching) Various Neighborhood Services Church Committee persons United Fund Salvation Army

ENGLISH IV

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ENGLISH As It Pertains To Home and Family Life		I. Importance of the Home A. Chief unit in society B. History of families C. Contrast family life of today to the more rural living of yesteryear. II. Home Managements A. Responsibilities of parents B. Finance--budgets C. Consumer Information D. Sharing--work, finance, etc. III. Establishment of a home A. Preparation for marriage 1. Responsibility 2. How society can help 3. Court of Domestic Relations 4. Marriage counselor 5. Need for education	Use of household magazines, advertisements, etc. Mini Unit on Money Budgeting. Included in Budgeting of Money: 1) Family Income (deducting income taxes) 2) Housing Expense 3) Household Expenses 4) Car Expense 5) Food Expense 6) Opening Savings Account 7) Insurance and Health Care 8) Buying on Credit 9) Lay-away Plans 10) Problems of being a Credit Risk 11) Down Payments 12) Family Planning 13) Provisions for Budget Adjustment 14) Mortgages and home buying 15) Property Taxes 16) Loans and Interest Notes 17) Yearly Income Taxes Bring in Marriage Counselor. Visit a Hospital. Bring in guest speakers--nurse, doctor, parents with first child, child development specialist.

ENGLISH IV

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ENGLISH As It Pertains To Home and Family Life (continued)		III. Establishment of a Home (continued) B. Making the most of marriage 1. Choosing a partner 2. Purpose of engagement 3. Characteristics of a happy family C. Preparation for parenthood 1. Family planning 2. Impact of first born child D. Areas of Adjustment 1. Age differences 2. Religious differences 3. School adjustments 4. In-laws 5. Differences in culture 6. Different interests of wife/husband 7. Children growing up E. Divorce 1. Influence of ... 2. Impact on parents and children	List and compare reasons why people get married. Student report on courtship and marriage customs of other cultures and/or countries. Discuss aspects of the wife working after marriage. Ways of being happy without marriage. Write paper on the different aspects of legal and social marriages. Discuss ways to make life easier for pregnant wife. Guest speakers invited by letters written by students. Speakers: Older married couple Insurance expert Banker Teenaged married couple Career woman Investigate public agencies that help a family in temporary financial trouble.

ENGLISH IV

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ENGLISH In Relation To Community Life	The student will be able to use the phone directory, television, and radio guides.	I. Communications A. Telephone B. Newspapers C. Radio and TV II. Welfare facilities A. Children B. Aged III. Recreational needs A. Parks B. Pools C. Clubs IV. Health needs	Field trips to welfare agencies. Discuss varying needs of large and small communities. City welfare pamphlets.

ENGLISH IV

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
ENGLISH In Relation To Career Life	The student will be able to read and analyze reports--general; technical, i.e., income tax; reviews.	I. Filling Out Forms A. Work Permits B. Social Security C. Health Cards D. Bank Forms 1. Identification 2. Deposit and Withdrawal E. Income Tax F. Job Awareness	Secure check list from job coordinator of necessary things to do before student is actually on the job. Secure samples of many forms to allow students much practice. Have work counselor talk about importance of correctly filling out forms. Practice using legible printing or writing and correct spelling in filling out forms. Obtain voting machine from the teacher consultants. Have students develop a criteria for job clustering; students can put jobs related in clusters. Have students develop a career ladder for three occupations of his choice. (Hierarchy of several occupations) Have students prepare a tape discussing English skills necessary in several occupations (Stress the importance of communication in occupations).

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
CLERICAL SKILLS	The student will be able to demonstrate clerical skills.	I. Typewriting	
		A. Straight Copy	
		B. Letters, envelopes	
		C. Typing forms	
		II. Job efficiency	Role playing in applying for a job. Tape interview for class discussion and evaluation purposes.
	The student will be able to participate in an interview.	A. Applying for job	
		1. Want ads	Discuss the importance of first impressions in applying for a job.
		2. Letter of application	
		3. Application blanks	
	The student will be able to write letter of application.	4. Interview	Bring in want ads and write letters of application for a job. (Type letters or write legibly.)
		B. Personal qualities	
		1. Personal appearance	Fill out application blanks. (Type or write legibly).
		2. Dress	
		3. Cleanliness and neatness	
		4. Health	
		5. Personality	
		6. Cooperativeness and tact	
		7. Initiative	
		8. Manners	

ENGLISH IV

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
CLERICAL SKILLS (continued)	The student will be able to communicate effectively.	III. Self-Improvement A. Social maturity 1. Relationship with others B. Emotional maturity IV. Filing A. Purpose for filing B. How to file C. Alphabetic filing D. Geographic filing V. Communication A. Telephone 1. Making and receiving calls 2. Taking telephone messages 3. Giving telephone messages 4. Types of calls a. Business b. Social 5. Telephone manners 6. Using directory	Have student write autobiography to reveal his feelings about himself. At the beginning of the course an evaluation check list of personal qualities is used to help students look at themselves objectively. Also, students evaluate each other. Towards the end of the course, the same check list is used to see if there has been any self-improvement. Practical experience with filing is given using filing boxes. Show how filing can be used in the home. Show the relationship of an office filing system to the use of the telephone directory, dictionary, etc. Make various types of calls. Tape calls for class discussion and evaluation. Give an opportunity to take and give telephone messages. Evaluation check list used to evaluate each call. Exercises are given in using telephone directory. Discuss information that should be included in different types of calls.

ENGLISH IV

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
CLERICAL SKILLS (continued)		V. Communication (continued)	
	The student will be able to write formal business letters.	B. Letterwriting	
		1. Types	
		a. Business b. Social	
		C. Telegrams	
		VI. Banking forms	
		A. Deposit slips	
		B. Withdrawal slips	As a class project, telegrams are sent whenever occasions arise.
		C. Checks	
		VII. Emphasis throughout	Different types of letters are written.
	The student will demonstrate grammatical competencies.	A. Grammar	Letters are written for free material according to individual interest.
		1. Punctuation 2. Capitalization	Obtain actual forms used in banking.
		3. Spelling 4. Sentence structure	Follow steps used in banking, giving practice in filling out forms.
		B. Writing	
		1. Neatness 2. Legibility	

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
CLERICAL SKILLS (continued)		VIII. Office practice for purchasing	
		A. Purchase requisitions	
		B. Purchase order	
		IX. Payroll	To discuss how and why timecards are used.
		A. Timecards	
		B. Payroll records	Fill out payroll records.
		C. Payroll deductions	Practice in writing checks.
		D. Writing checks	

A SUGGESTED COURSE OUTLINE
FOR TEACHERS, COUNSELORS, COORDINATORS, AND JOB COACHES
OF CHRONIC-DISRUPTIVE YOUTH

SOCIAL STUDIES SECTION

Compiled by

Dr. Sidney Miller
Dr. David Sabatino
Dr. Charles Sloan

October, 1975

Forward

The social studies units are to be considered as general knowledge necessary for the successful socialization of youth to society. Although the content may not be directly related to the Generic study skills cited in chapter four in terms of the percent of utility each skill has for the worker on his job, the social studies content is, at the very least, indirectly related because it serves to educate people and to foster their growth as contributing members of society.

COURSE OUTLINE

SOCIAL STUDIES

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SOCIAL STUDIES OVERVIEW

Social Studies, as a career oriented subject, is intended to develop in each youth an understanding of the various segments of society. By providing experiences that develop attitudes and habits conducive to family living, by encouraging responsible membership in the community, the social studies education can result in youth having an improved grasp of their environment. Social Studies may foster an acceptable self-concept in each youth. It is the intention of the author that the use of the study content and suggested learning experiences be a joint decision between the student and his coordinator. Not every student should be expected to study every area. It is essential that the abilities, interests, and needs of each individual be considered in the selection of study content. The following is a suggested content outline:

Level I---An Orientation to Student-Related Areas of Study

1. An orientation to the Residential Center in order to acquaint the student with its facilities, personnel, and procedures.
2. An orientation to and preparation for the Job-Training Program, including practical knowledge of how to obtain and hold a job, rights and benefits of a worker, and job-related problems.
3. An orientation to the student's personal and social needs, including clothing selection, grocery shopping, and forming peer and marital relationships.
4. An orientation to family living and the responsibilities of home management.

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SOCIAL STUDIES OVERVIEW (continued)

Level II---The Study of Communities and Characteristics

1. A study of community structure with an emphasis on local government, public services, sources of consumer information, and recreational factilities.
2. A study of state organization with an emphasis on state history and government, Illinois industry, careers in Illinois, and recreational facilities and resources.
3. Study of citizenship with an emphasis on civic rights and responsibilities and laws and law enforcement.

Level III---Review of Basic Disciplines of Study in the Social Sciences

1. An overview of American History with an emphasis on the federal government and a general knowledge of the United States.
2. Suggestions of special topics and activities are provided for individual and/or small group study.

SOCIAL STUDIES I

SOCIAL STUDIES I

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
RESIDENTIAL CENTER ORIENTATION	The student will be able to know and understand the facilities, personnel, and procedures of the Residential Center	I. Knowing the teacher II. Getting around in the Center III. Obeying Center rules IV. Keeping the Center clean V. Knowing proper assembly behavior VI. Selecting a student council representative VII. Good sportsmanship VIII. Participating in Center projects; attending athletic events; school clubs IX. Learning fire drill procedures X. Center behavior	Make a tour of the facilities. Make a map of the facilities. Make a chart of school rules. Make up a booklet (using name of center as title) to be used as a handbook by students. Invite counselor, assistant principal to class to discuss assembly procedures. Run through methods of voting for representative (ballot, unanimous, etc.). Show films on sportsmanship. Encourage students to attend athletic contests. Set up bulletin board: "What's doing at _________ Center" to encourage student participation. Make up a booklet: "Rules I must Know: with sections covering working, attendance, penalties". Role playing: "Proper Behavior at ____________." Read booklets and pamphlets on dating. Make up posters on various rules. Choose the "citizen of the week or month" (based on pre-determined criteria).

SOCIAL STUDIES I

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
JOB ORIENTATION	The student will be able to relate one's interests, aptitudes and achievements to realizations of one's career aspirations.	I. Plan for Life A. Understand and accept personal assets and limitations; relate these to future job possibilities. B. Understand importance of having an occupational plan 1. Work experiences 2. Social experiences C. Develop an awareness of jobs available and training required	Personality survey. Make a list of personal assets and liabilities. Class discussion; values of having job experiences. Develop realistic plans for living with selected occupation. Make up a comparative diagram showing personality traits helpful to certain jobs (e.g., liking people--nurse's aide). Make up a booklet of jobs available in the Chicago area. List skills necessary for certain types of jobs and locate businesses where these types of jobs can be found. List and discuss jobs that are illegal for teenagers to hold.
	The student will be able to understand that there are a variety of jobs most of which require an education.	D. Emphasize self-acceptance and self-realization of job potentials	Visits to class by job holders to discuss their jobs and the skills required to such jobs. Make up a booklet of jobs to show particular skills, education, etc., of each. Give tests to point up assets as well as liabilities.

SOCIAL STUDIES I

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
JOB ORIENTATION (continued)	The student will be able to demonstrate work habits and attitudes necessary for entering an occupation.	II. Employment A. What it takes to get a job--self appraisal of general attributes necessary for getting and holding a job. 1. Punctuality 2. Steady worker	Prepare skits and play the role of: a habitually late employee improper beavhior (manners) on the job. improper dress for the job (This works better if the students write or organize the play themselves. Use SRA pamphlets for ideas). Make up application forms. Procure some locally.
	The student will be able to demonstrate skills to seek and secure a job.	3. Getting along with others 4. Good work habits 5. Neatness and carefulness 6. Following directions 7. Appropriate attire 8. Ability to read and fill out simple application forms	Have a list of work projects in classroom for students to work on. (This will help develop individual work habits and provide the teacher with an opportunity to evaluate them.)
	The student will be able to understand the variety of available careers.	B. What does the job require? 1. Skills necessary for performance of jobs C. Analyze different jobs 1. Custodial work 2. Cafeteria work 3. Car washer 4. Nurse's aide 5. Baby sitter 6. Service station attendant	Make a list containing assets and liabilities of self. Make a bulletin board display of clothing: "Are You Ready to Work?" Make a list of words for various work situations. Develop a reading vocabulary for each occupation studied. Use experience charts. Interview people with whom parents to business. Field trips to cafeterias, hospitals and other places of employment. Visits and talks by parents of the children who are in a particular occupation.

SOCIAL STUDIES I

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
JOB ORIENTATION (continued)		II. Employment (continued) D. How to locate a job 1. Plants and businesses in the community 2. Using want-ads 3. Employment services a. Illinois State Employment Offices b. Private employment agencies	Visits to local industries to observe types of work available--safety provisions, etc. Invite local employers to centers to tell what they look for in a potential employee. Read newspaper want-ads to find available jobs.
		E. Applying for a job 1. Letters of application, telephone, etc. 2. The Personal Interview a. Importance of dressing properly b. Proper manners and behavior 3. Filling out job applications 4. Using personal references	Practice filling out job application forms. Practice writing letters of application. Role Playing: Applying for a job Asking for personal reference Making appointment for an interview Provide work opportunities for students. Help evaluate assets and liabilities useful in ratings for participation in a work training program. Have each student make up a list of his own vital statistics to help him fill out application forms.
	The student will be able to relate one's interest and aptitude information to occupations.	F. Facts to consider when selecting a job 1. Seasonal work vs. long-term 2. Fringe benefits--group insurance, etc.	Invite a representative from a firm to discuss fringe benefits.

SOCIAL STUDIES I

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
JOB ORIENTATION (continued)		II. Employment (continued)	
	The student will be able to understand how personal and environmental conditions affect one's job.	G. Getting the job 1. Understand how personality affects work, matching jobs to personalities of workers 2. Jobs available to teenagers in the city a. Through want ads b. Knowledge of industries 3. Rules and regulations governing teenage employment a. Obtaining a work permit b. Obtaining a social security card	Administer a personality inventory test; discuss results in relation to jobs.
	The student will be able to recognize one's responsibilities involved in keeping a job.	H. Keeping the job 1. Ability to follow directions 2. Ability to work and get along with others a. Persons in authority b. Fellow workers c. Labor-Management relations 3. Sense of value in seeing a job well done a. Doing one's share b. Finishing a project 4. Reporting to work on time 5. What to do when unable to report to work 6. Responsibility of doing work unsupervised 7. Loyalty to the employer	Provide situations where the student must follow a complex set of written or oral instructions in a classroom situation. Provide opportunities for committee work. Discuss the importance of finishing one task before beginning another. Role playing to illustrate problems that might arise between an employer and his employees and possible solutions. Make a bulletin board display to show the breakdown of a dollar paid in deductions. Class discussion on why we pay taxes. Math problems to compute deductions, etc. Discuss certain equipment used on particular jobs (dish washers, etc.).

SOCIAL STUDIES I

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
JOB ORIENTATION (continued)		II. Employment (continued)	
		H. Keeping the job (continued)	Field trips to places of employment.
		8. Paying taxes from salary a. Withholding statement b. Payment of insurance--withheld 9. Exhibiting good work habits a. Care of equipment b. Organization of time and effort	Have students make reports on their job experiences.
		10. Exhibiting good personal habits a. Good grooming b. Health	Make a display poster showing proper and improper ways to dress for work.
	The student will be able to recognize the rights and benefits of a worker.	I. Rights and benefits of a worker 1. Social Security a. How to get a social security card b. Benefits of social security	Secure pamphlets for the local social security office. Have union representative discuss values and dues in a union.
		2. Compensation a. Workmen's b. Unemployment 3. Unions a. Joining b. Purpose and benefits c. Membership dues	

SOCIAL STUDIES I

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
JOB ORIENTATION (continued)	The student will be able to recognize problems related to a job.	II. Employment (continued)	
		J. Work-Day World--Job Problems 1. Payroll deductions--their uses and values a. Regular deductions 1) Social Security 2) Taxes b. Special deductions 1) Hospitalization 2) Union dues c) United Appeal d) How can these become savings?	Study application forms for various wage deductions. Practice filling them out. Discuss taxes and how our money works for us. Make a bulletin board to show various services provided by our tax money.
		2. Unions a. What they are b. How they operate c. How to join d. Advantages and/or disadvantages of joining	Invite a union person for a class discussion.
		3. Develop a responsible attitude toward the use of money a. Values of banking b. Values of budgeting c. Problems of borrowing	Plan budgets in the classroom. Stress need for planning ahead. Class discussion: "buying on credit" Visit by local banker or credit manager to gain knowledge of how credit ratings are established (good and bad) Discuss "hidden charges" in credit buying.

SOCIAL STUDIES I

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
PERSONAL NEEDS ORIENTATION	The student will be able to demonstrate knowledge of good nutrition in meal planning and food purchasing.	I. Caring for Personal Needs A. Grocery Shopping 1. Menu Planning 2. Food Purchasing	Plan a day's menu for a family of a given number and arrive at the cost. Determine the amount required for a week. Read weekly grocery ads in the newspaper.
	The student will be able to exercise judgement in clothing purchases and exercise care of clothing.	B. Clothing 1. Skills in the Purchase of Clothing a. When a sale is not a sale b. Types of bargains on different items of clothing c. Buying seasonal clothing 2. Vocabulary for understanding the labels a. Washing instructions b. Ironing instructions c. Materials used	Field trip when possible to a clothing store. Study and inspect clothing labels Read: "Consumer's Union Guide"
	The student will be able to manage a personal budget and use bank facilities.	C. Budgeting 1. Having a Savings Account a. Emergency use 2. Preparation of a personal budget a. Planning spending for social activities b. Buying clothes	Discuss the responsibilities of a person for all debts that he incurs. Ordering from a mail order catalog. Use newspaper ads for buying clothing. Visit a bank Discuss Credit Cards Have each student budget his own allowance or paycheck. Discuss overspending checking account funds. Practice withdrawal of funds from bank.

SOCIAL STUDIES

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
SOCIAL NEEDS ORIENTATION (continued)	The student will be able to understand appropriate heterosexual relationships.	II. Dating and The Future A. Develop the Idea of Dating as a Selective Process of Choosing a Mate 1. Dating steady a. Problems involved b. Values of 2. Having similar interests B. Dating and Family Living 1. Parents 2. Personal responsibilities 3. Accepting Others As They Are 4. Finances	Socio-Drama: "Personalities and Their Relationship to Successful or Unsuccessful Dating and Eventual Marriage" Prepare a Pamphlet: "High School Know-How" (Include acceptable teenage customs, manner of dress, dancing, expressions (conversational and social behavior).

SOCIAL STUDIES I

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
SOCIAL NEEDS ORIENTATION (continued)	The student will be able to express feelings of self-worth.	III. Self-Realization: The Kind of Person I Am	Class Discussions: Controling tempers and emotions Good and bad personality characteristics
		A. Develop Realistic Self-Concepts 1. Social 2. Emotional 3. Physical	Administer a class sociogram
		B. Develop Ways of Self-Improvement	Bulletin Board: Characteristics of an "Ideal Person"
	The student will be able to understand those things needed for acceptance by others.	C. Appearances and Behavior Which Influence Others' Opinions 1. Personality 2. Grooming 3. Social Behavior 4. Character Traits	
	The student will be able to understand public etiquette.	IV. Behavior in Public	Produce Socio-Dramas showing various situations in which students might find themselves involved.
		A. Making Introductions	
		B. Telephone Courtesy in Public Places	Invite a local insurance agent to discuss car insurance (Need for it, etc.)
		C. Restaurant Behavior	Have seniors give talks to freshman classes encouraging them to join certain clubs.
		D. Asking Information	
		E. Reporting Accidents	

SOCIAL STUDIES I

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
SOCIAL NEEDS ORIENTATION (continued)	The student will be able to recognize adult-like qualities and characteristics.	V. Becoming an Adult A. Developing a compatible personality B. Developing poise and responsibility C. Being tolerant of others 1. As related to socio-economic background 2. As related to race D. Using self control E. Knowing the assets and liabilities of own personalities and talents	Make self-inventories of personality traits. Discuss how they can be improved. Collect news clippings of outstanding contributions made to society by members of all races. Invite a minister, rabbi, or priest to class to discuss various aspects of religious tolerance. Have panel discussions on the subject of marriage, given from the girls' point of view and the boys' point of view.
	The student will be able to understand how to establish a close relationship.	VI. Getting ready for Marriage A. Knowing how and where to meet possible mates B. Developing ideas of what it takes to make a "good" marriage. 1. Sharing common interests 2. Assuming responsibilities 3. Having interest in and concern for others	Interview adults asking the question: "What is the key to a happy marriage?" Use many films on "Marriage," "Responsibilities of a Family," Sex Relations," etc.

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SOCIAL STUDIES I

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
HOME MANAGEMENT ORIENTATION		I. Family Living	Use films on "Family Living"
	The student will be able to demonstrate knowledge of responsibilities involved in marriage.	A. Getting Along with the Family 1. Rights and responsibilities in the family 2. Avoiding arguments 3. Understanding parents 4. Solving family problems	Role playing of various problems faced by families and teenagers. Plan a family outing. Set up procedures that would be helpful in solving problems related to differing family opinions.
	The student will be able to manage family finances.	B. Family Finances 1. Allowances 2. Extra jobs 3. Spending money wisely a. Buying clothing b. Quality vs. quantity 4. Importance of saving 5. Budgeting for the future	Read newspaper advertisements to understand and interpret sales, etc. Discuss family finances and the teenager's role in these problems. Discuss money for dating in relation to money needed for necessities.
	The student will be able to select adequate housing.	II. Home Buying--Analysis of Basic Construction Principals A. Plumbing B. Heating C. Electrical D. Ventilating E. Roof and Basement	Visit to the class by a contractor. Field trip to a home under construction. Class groups make up a room using construction paper. Use a Ward's or Sear's catalog to price items in the room.

SOCIAL STUDIES II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
COMMUNITY STRUCTURE	The student will be able to understand basic local government.	I. How City Government Works A. Departments B. Services of each II. How Offices are Filled A. Voting B. Criteria for Choosing Leaders III. Who Holds Major Offices A. Names of Major Office Holders B. Qualities of Leadership IV. Community Help Agencies A. Study of the Agencies That Provide For Health, Safety and Welfare of the Community 1. Fire and Police 2. Board of Health and Department of Sanitation 3. Civil Defense 4. City Hospitals 5. American Red Cross 6. Weather Bureau 7. TV and Radio Stations B. Services, Location and Financial Support of American Red Cross V. City Services A. Develop awareness of services provided by city workers B. Look at the inner workings of various departments.	Discussions: Voting Criteria for choosing leaders Civic Departments and services of each Obtain pertinent information from Municipal Building--a trip may be advisable Prepare posters and materials for topic on city government Conduct surveys to locate places to vote, etc. Discuss problems, if any, in state or community. Resolve a solution and attempt to take action. Example: Ugly, dimly lighted street (Write letters to proper sources) Invite an official to discuss community problems and how they are being solved. Discuss local organizations: Churches, Schools, community centers, and activities offered by each. Read histories of various health heaoes, published by Metropolitan Life insurance Company ("Health Heroes Series") Write to local health agencies for brochures on services their organizations provide for the community: Goodwill Industries, Volunteer Service, TB Association. Invite a school nurse to discuss facilities available tt ressonable prices.

SOCIAL STUDIES II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
COMMUNITY STRUCTURE (continued)		VI. Urban Renewal	Field visits to local areas that have been renewed.
		A. Purpose	
		B. Value	Discuss benefits of urban renewal.
		C. Prevention	Keep scrapbook of news clippings related to local urban renewal projects.
		VII. Telegraph	
		A. Brief History	Write a telegram that you might send.
		B. Study of Morse	
		C. Story of Western Union	
		D. Automation and the Telegraph	
	The student will be able to understand and locate sources of consumer information.	VIII. Post Office	Bring to class current articles on post office automation from newspapers and magazines.
		A. Services offered by Post Office 1. Special Delivery 2. Money Order 3. Air Mail 4. Parcel Post	
		B. Jobs connected With The Post Office 1. Mail Carrier 2. Truck Driver 3. Special Handler (etc.)	
		C. Automation of Post Office	

SOCIAL STUDIES II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
COMMUNITY STRUCTURE (continued)		IX. The Newspaper: Examination of Various Sections of the Newspaper	
		A. Classified (Want Ads) 1. Purpose 2. Value	Field trip to newspaper office.
		B. Sports Section	Print a newspaper for the residential center.
		C. Front Page News	Separate headlines from articles and have students match them up.
		D. Entertainment Section 1. Comics 2. Television 3. Radio 4. Movies	
		X. Radio and Television	
		A. Purposes of Programs 1. Entertainment 2. Information	Field trip to local T.V. and radio stations.
		B. Comparison of meaningful and nonmeaningful programs	Make up a show for T.V.
		C. Location of Radio and TV Stations in the area	
		D. Understanding How Radio and TV Stations are Operated 1. Who Controls TV 2. How Is It Paid For? 3. Brief History of Development of Radio and TV 4. Future Plans for Radio and TV	

SOCIAL STUDIES II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
COMMUNITY STRUCTURE (continued)		XI. Transportation: Bus, Train, Plane, Boat A. Kinds of Transportation Available in Illinois B. Making Ticket Reservations C. Purchasing Tickets D. Good Travel Manners	Locate transportation (station) centers on a map. Compute distances to area towns: Chicago Peoria Rockford East St. Louis Use road maps to chart bus routes. Role playing: Buying a ticket Telephoning for reservations Manners on plane, train, etc. Plan a bus trip to local area of interest. List some good conduct rules for travelers.
		XII. Historical Facts about local Communities	Use map of local county area. Read county road maps. Plan field trips.
	The student will be able to understand and use recreational facilities.	XIII. Recreational Facilities in local Communities A. Knowing and using them B. Understanding that they are tax-supported	Discuss recreational facilities and rules for their use. Plan a picnic to a local park. Introduce students to different sport areas and facilities. Discuss use of tax money for parks and recreation centers.

SOCIAL STUDIES II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
STATE ORGANIZATION	The student will be able to understand state history.	I. Learning the history of the state	Read history of state and community.
		A. Why settled B. How settled C. Important settlers	Read and Compare famous persons--past and present.
		II. Getting around in the state	Map reading.
		A. Cities (Chicago, Rockford, Elgin, St. Charles)	Locate various points of interest on state and city map. Place city maps in 2 or 3 places about room. Make a display of interesting places in state and city (pictures, souveniers). Plan field trips.
	The student will be able to understand state organization.	III. Government	Make a chart and place names and pictures of officials in branches of government.
		A. Organization of the State Government	Keep a scrapbook pertaining to different departments of Illinois government (current events).
		1. Legislative Branch (Makes the Laws) General Assembly a. Senate b. House of Representatives	Prepare oral and written reports on the state election.
		2. Executive Branch (Enforces the Laws) a. Governor b. Lieutenant Governor c. Other Officers d. Administrative Heads e. Department Directors	Write letters to state representatives and senators. Ask a local state representative to address the class. Discuss the two-party system of politics.
		3. Judicial Branch (Explains and interprets the laws) The State Courts	Visit local party headquarters.

SOCIAL STUDIES II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
STATE ORGANIZATION (continued)		III. Government (continued) B. Departments of the State 1. Commerce 2. Agriculture 3. Natural Resources 4. Health 5. Education 6. Public Works 7. Highways 8. Adjutant General	Set up chart showing various state agencies and the services provided by each. Visit local governmental agencies when possible. Visit the Illinois State Museum. Make a list of local agencies and their services. Make a chart of agencies' services. Use map to locate the more essential service agencies. Discuss civic responsibility of contributing to community drives. Read and discuss newspaper articles. Discuss services offered in times of disaster; e.g., fire destroying homes and contents.
	The student will be able to understand the need for Public Services.	C. Agencies serving the State 1. Department of Vocational and Technical Education 2. Department of Child and Family Services 3. United Appeal 4. Welfare 5. City Police 6. Fire Department	
	The student will be able to demonstrate knowledge of industry in Illinois.	IV. Industry A. Major Industries of Illinois 1. Where located 2. Why located there a. Raw materials b. Transportation B. Vocabulary Related to Various Industries 1. Assembly line 2. Seniority 3. Piece work 4. Closed shop	Make a pictorial map of Illinois showing kinds of jobs and industries in major Illinois cities. Make a vocabulary notebook of terms which workers need to know in various industries (Picture dictionaries are helpful). Make a scrapbook of descriptions of various kinds of semi-skilled and unskilled jobs. Include pictures and names of Illinois cities where such jobs can be found.

SOCIAL STUDIES II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
STATE ORGANIZATION (continued)		IV. Industry (continued) C. Jobs Available in Illinois for the Semi-skilled and Unskilled Laborer. 1. Industry 2. Farming 3. Mining 4. Public Works 5. General Service Personnel	
	The student will be able to understand the variety of available careers	V. Jobs Available to Teenagers in Illinois A. Food Services 1. Bus boy 2. Salad maker 3. Steam table server B. Health Services 1. Nurse's aide 2. Attendant C. Custodial and Janitorial D. Service Stations E. Bakery F. Sales G. Stock and Warehouse H. Laundry	Pinpoint the different places that employ these types of workers. Students make up a notebook listing Illinois industries, addresses, and kind of work available at each one. Ask the Job Coach to speak to the class. Bring in people employed in the community in these various jobs.

SOCIAL STUDIES II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
STATE ORGANIZATION (continued)	The student will be able to know recreational activities and available resources.	VI. Using State Parks A. Where to get information on State Parks B. Develop good sense of citizen responsibility toward care of parks 1. Conservation laws 2. Safety rules C. Historical Background of State Parks VII. Swimming, Fishing, Boating in Illinois A. Areas for Aquatic Activities B. Illinois Laws Governing Fishing and Boating C. Criteria for Safe Swimming VIII. Places to Go for Recreation A. Lake Michigan B. Galena C. State and County Fairs D. Boat Races E. Baseball and Football Games (Baars, Cubs, White Sox) F. Museums G. State Parks	Write letter to the Illinois State Historical Society and Tourist Information for material on Illinois parks. Contact a member of the Illinois Conservation Department to speak to the class on conservation. Plan a field trip to a local state park. Practice conservation and safety rules. Use a map of Illinois to find good places to go for swimming, boating, fishing. Procure these maps from the Auto License Bureau. Show films on safety in swimming, fishing, and boating. Discuss and make reports on state and county fairs. Use road maps to plan trips to recreational places in Illinois. Make a booklet describing various parks and their facilities, locations, etc. Have discussion on inexpensive places to go that could be fun.

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
STATE ORGANIZATION (continued)	The student will be able to recognize famous Illinoians and their contributions.	IX. Famous Illinoians A. Names of Illinoians and Their Contributions 1. Local persons a. Stevenson b. Douglas c. Sandburg d. Grant e. Brigham Young f. Black Hawk g. Jane Addams 2. Other parts of the state a. Carbondale b. Other areas c. Outstanding governors B. Develop an Idea of the Sequence of Events Concerning These People 1. Time Line C. Significance of Contributions Made by Notable Citizens.	Use Kraft rolled paper to make a time line with pictures of events and dates arranged in a sequence. Make oral book reports on lives of these famous people. Make a chart showing the good qualities. Visit the restored living sites of some of these people.
		X. Illinois Inventors and Their Inventions A. Importance and uses of inventions B. Contributions of significant inventors C. How inventions have changed our way of life	Use encyclopedia to study about inventions and inventors. Develop a time line to show interrelationship of inventors. Make a display "Then---Now" or "Before--After".

SOCIAL STUDIES II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
CITIZENSHIP	The student will be able to understand the purpose, structure, operation and responsibilities necessary to participate as a productive citizen. The student will be able to understand basic laws and law enforcement.	I. Voting	
		A. How to register B. Being an informed voter	Prepare pamphlets of citizens' duties.
		II. The Laws	Visit a local poll.
		A. Understand the Necessity of the Law	Procedure for voter registration.
		B. Understand the Effects of the Law	Read booklets on driving responsibilities.
		1. Records 2. Juvenile Courts 3. Adult Courts 4. Enforcement a. Police b. Sanitation c. Safety d. Public Defender	Discuss laws of health and sanitation.
		C. Law Obedience	Discussion relating to car ownership, responsibility of having proper insurance, car safety inspection checks, etc.
		1. Parole 2. As automobile drivers 3. Forming contracts 4. Marriage 5. Paying bills	Develop a vocabulary of terms: Jury Summons Courts Perjury Subpoena Injunction Writ

SOCIAL STUDIES II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
CITIZENSHIP (continued)		III. Armed Services	
		A. Serving in the Armed Forces	Class discussions relating to our duty to serve in the military forces.
		B. Legal Military Responsibility	
		C. Where to Obtain Military Information	Invite a selective service officer to explain the legal responsibilities of the draft.
	The student will be able to understand the tax structure of our society.	IV. Taxes	
		A. Types 1. State 2. Federal Income 3. Local Property	Practice filling out and filing income tax forms; W-2 1040
		B. Uses of Tax Money	
		C. Knowledge of Tax Forms	

SOCIAL STUDIES II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
CITIZENSHIP (continued)	The student will be able to understand and demonstrate safety procedures.	V. Safety A. Auto Safety 1. Review and Sharpen Understanding of Auto Safety a. Passengers b. Use of seat belts c. Safety rules as a driver and a rider 2. Pre-Driving a. Rules and regulations concerning codes of the road b. Signs of the road c. Safety inspections 3. Insurance a. Laws of Illinois concerning driving privileges 4. Travel information a. AAA b. State patrol c. Travel agencies 5. Using Road Maps a. Reading the scale and index b. Meaning of symbols and colors c. Mileage charts	Consider points of "Getting a Driver's License" Age Sight Hearing Ability to read signs, etc. Obtain road maps from local service stations (State and interstate maps) Plan trips in the area. Discuss the best way to go from one city to another in terms of travel time, traffic problems and the purpose of the trip.

SOCIAL STUDIES II

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
CITIZENSHIP (continued)	The student will be able to understand the need for citizenship.	V. Safety (continued)	
		B. Pedestrian Safety 1. Review Rules of Safety for Pedestrians a. In a crosswalk b. On country roads c. On express highways	Experience Charts. Analyze each accident related. Show how it could have been prevented. Make individual reports on home accidents.
		C. Home Safety 1. How to be Safe at Home 2. Review Basic Home Safety Rules	Collect pictures showing home accidents and have students write stories about them.
		VI. Teenagers as Contributors to Society A. Successful youngsters	Reading: Newspapers Teen Columns Magazines Encyclopedia--Compton's Short Biographies (4th-5th grade reading level)
		VII. Qualities of Leadership	Consider local personalities in discussing leadership qualities

SOCIAL STUDIES III

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
AMERICAN HISTORY	The student will be able to understand an overview of American history.	I. United States History A. Basic Ideals and Traditions of the U.S. B. Famous Americans 1. Past 2. Present	Use a United States map to locate historic sites (Arlington National Cemetry, etc.) Prepare Book Reports on Biographies of Famous United States citizens.
	The student will be able to understand Federal Government organization.	II. Our Government A. Develop a Basic Understanding of How Our Government Operates 1. National Congress 2. President and Cabinet 3. Supreme Court 4. State and Local Governments B. Provide Knowledge of What the Government Does For Its Citizens 1. Constitution 2. Bill of Rights 3. Protection 4. Health, Welfare Education 5. Social Security	Prepare simple charts comparing life in the U.S. with that in foreign countries. Make a scrapbook of clippings of news articles on our government. Class visits to: City Council, other. Diagram elective offices showing duties of each. Class visits to local political party campaign headquarters. Class visits to voting polls and County Board of Elections Class discussions on Bill of Rights. Prepare a Bill of Rights to meet everyday situations. Prepare a class dictionary of governmental terms: minority, representation, etc.

SOCIAL STUDIES III

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
AMERICAN HISTORY (continued)		II. Our Government (continued) C. Understand the Basic Principles of Our Government 1. The Meaning of Democracy 2. Meaning of Terms Such As: a. "Will of the majority" b. "Protection of the minority" c. Pressure Groups D. Understand Political Parties as a Part of Our Government E. Elections 1. Primary 2. Special 3. Regular	Rewrite sections of the Constitution and Bill of Rights, using students' vocabulary. Invite a person from the Social Security Office to speak to the class. Making charts depicting life in other countries. Obtain books from local library comparing customs in the United States with those in other countries. Invite a prominent person to speak to the class on his travels in foreign countries. Encourage students to watch TV programs relating to other lands. Use both a political and U.S. road map.
	The student will be able to demonstrate a general knowledge of the United States.	III. Geography and General Knowledge of the USA A. Large Cities of the USA 1. Chicago 2. New York 3. Los Angeles 4. Others B. Major Water Ways of the USA 1. What they are 2. Where they are 3. Historical value 4. Uses today	Make up a map booklet showing location of U.S. cities, water routes, etc. Use easel chart--draw symbols of the state. Students and teacher together write an explanation for each illustration. Use a relief map of the world to compare Illinois to other neighboring states. Discuss facts found and how they relate to industry.

SOCIAL STUDIES III

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
AMERICAN HISTORY (continued)		III. Geography and General Knowledge of USA (continued)	
		C. General Land Features and Climate 1. Comparison of U.S. with Neighboring Nations	Write stories about the symbols of the U.S. based on real facts. Have students write to the U.S. Department of Documents for printed materials about the U.S.
		D. Symbols and Interesting Facts About U.S. 1. U.S. flag 2. U.S. nickname	
		E. Study of Famous Americans 1. George Washington 2. Abraham Lincoln 3. John F. Kennedy 4. John Glenn 5. Martin Luther King 6. George Washington Carver 7. Jackie Robinson	
	The student will be able to understand the relationship of the U.S. to the world.	IV. The United States and the World A. The United Nations 1. Purpose 2. Location 3. Understanding Why Nations Work Together	Discuss current World News.

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SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
AMERICAN HISTORY (continued)		IV. The United States and the World (continued) B. Compare the United States with Other Countries 1. Ethnic Composition 2. Politically 3. Socially 4. Physically 5. Economically C. Other Large Major Countries 1. England 2. France 3. Russia 4. China V. North American and Other Continents A. Compare North American with Other Continents 1. Africa 2. Asia 3. South America 4. Europe 5. Australia	

SOCIAL STUDIES III

SUBJECT	OBJECTIVES	STUDY CONTENT	SUGGESTED LEARNING EXPERIENCES
SPECIAL STUDIES	The student will be provided an opportunity to pursue the study of a special topic related to his interests and needs.	The following are suggestions of topics for special studies which the student selects and studies individually or with a group. I. Black Americans A. History B. Prominent people, past and present C. Dialects D. Music E. Foods F. Sports heroes G. Literary contributions H. Art contributions II. American Indians A. History B. Prominent people, past and present C. Dialects D. Music E. Foods F. Sports heroes G. Literary contributions H. Art Contributions III. Other topics suggested by the student	These topics can be studied in a variety of ways: contracts, independent study, book clubs, class projects, seminars, cottage group discussions. Invite prominent Black Americans to the Center. FIELD TRIPS (related to Black culture) Concerts Restaurants Plays Athletic Events Form a book club for purposes of reading and discussing Black literature, plays, poetry, etc.